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ABSTRACT

To evaluate the effectiveness of the Manpower Development and Training Act (MDTA) institutional training program in preparing trainees for employment, interviews were held with administrative personnel, employers, counselors, and trainees. The survey revealed that completion rates are generally low, due to excessive counselor case loads, and relevance to labor market requirements could be improved, although performance varies considerably between areas. The quality of training is high--the content of occupational skills training projects is relevant to job requirements, facilities are adequate, and instructors are providing a favorable learning environment. Basic education components are providing valuable instruction in fundamental skills. The study recommends that standards of systems effectiveness be adopted based on job placement as a percentage of enrollment. Predictive modeling methods for forecasting local labor market requirements and improved methods for assessing the potential of applicants are recommended. (Author/BH)

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EVALUATION OF THE RELEVANCE AND QUALITY OF PREPARATION FOR EMPLOYMENT UNDER THE MDTA INSTITUTIONAL TRAINING PROGRAM

FINAL REPORT

May 31, 1971

VT 015 884

Mentec Corporation
5615 WEST PICO BOULEVARD
LOS ANGELES, CALIFORNIA 90019

PREPARED FOR THE
BUREAU OF ADULT,
VOCATIONAL AND TECHNICAL EDUCATION
OFFICE OF EDUCATION
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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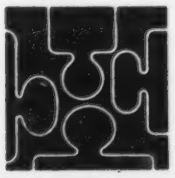

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Please make the following corrections in your copy of this report.

Chapter	Page	After the word(s)	Insert
Table of Contents	iv	Physical (Appendix F)	Facilities
Summary	viii	Entity	that characterize the innovative progress of skills centers should be adopted for other
Chapter 2	21	state.	Delete Figure and insert Table 7
Chapter 2	46	employment.	Many employers are as a result
Chapter 3	68	junior college,	with many trainees completing above 8th grade
Chapter 3	86	Table 36.	It in lieu of Iti

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Opinions expressed in this publication are those of the contractor and do not necessarily reflect the official opinion of the U.S. Office of Education.

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SUMMARY

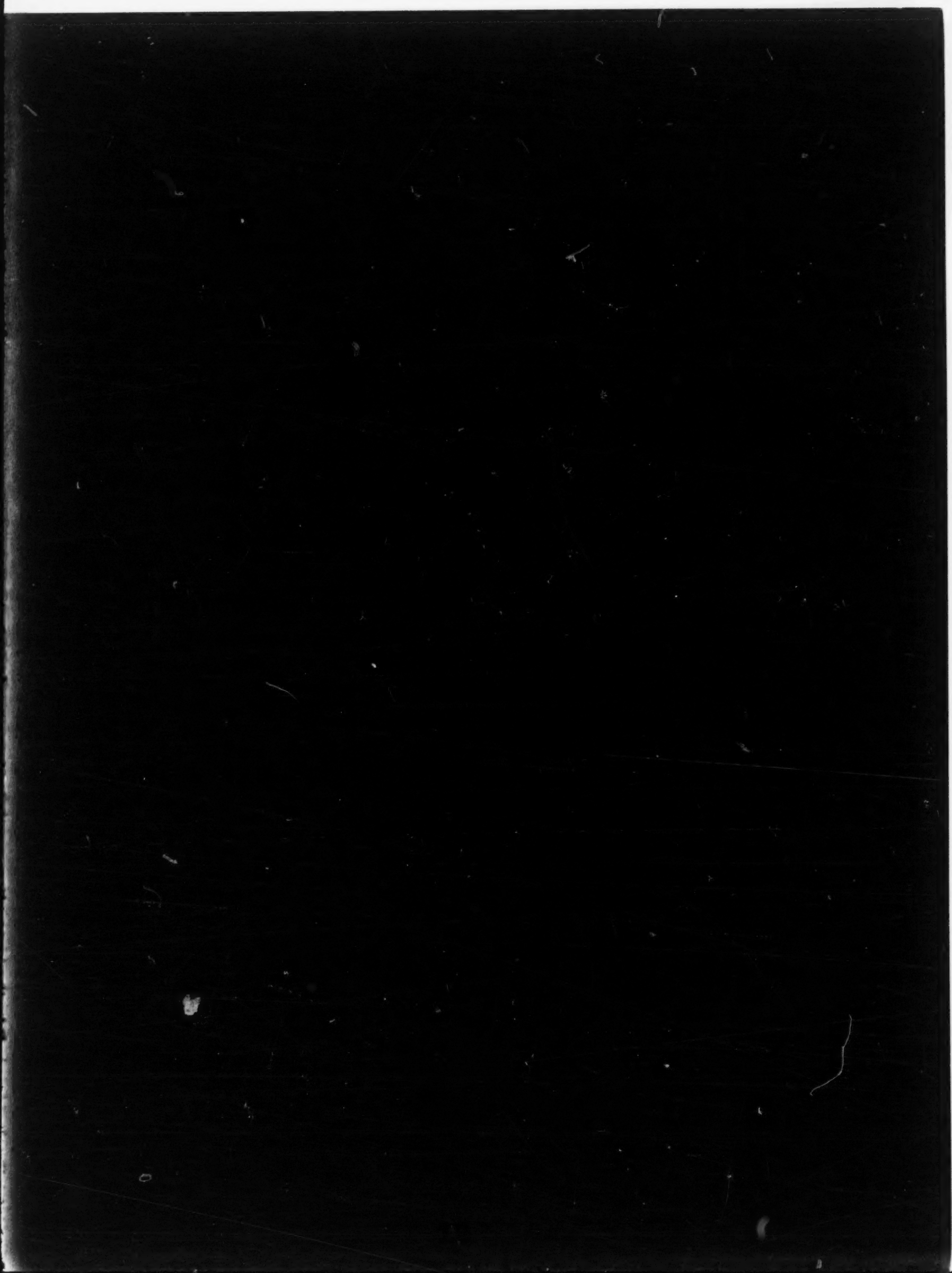
In evaluation of the relevance and quality of preparation for employment under the MDTA institutional training program, twelve labor market areas were surveyed. The study included a total of 511 interviews with training administrators, Employment Service personnel, Comprehensive Area Manpower Planning System (CAMPS) chairmen, employers, instructors, counselors, and trainees, and observations of 143 classes in occupational skills training, basic education, orientation, and pre-vocational training. The survey revealed that overall completion rates as a percentage of input are lower than should be acceptable for a federally funded program. The relevance of the program to labor market requirements is low as reflected by job placements, both as a percentage of training completions and as a percentage of input into the program. Considerable variations in levels of program effectiveness were found among the labor market areas, within individual cities, and among occupational areas.

The quality of the training in MDTA institutional training facilities is high, reflective of the national interest and concern for special training for disadvantaged persons. The survey shows that the content of occupational skills training projects is relevant to job requirements, that equipment and physical facilities are adequate, and that instructors are providing a favorable learning environment in which adult trainees can achieve their training goals. Employers interviewed for the survey report that trainees are performing well on the job and that their work habits are satisfactory.

Basic education components are providing valuable instruction in fundamental skills. Counselors' case loads are in many instances too large so that the potential of counselors to identify and assist trainees who may terminate before completion is not being realized. There is a need for further examination of the objectives and practices of employment orientation and pre-vocational training components. Trainees see themselves as making progress and report that the instructors are providing a favorable learning situation.

The study recommends that standards of systems effectiveness be adopted based on job placement as a percentage of enrollment. The suggested standard is 85 percent to be attained by 1974. Predictive modeling methods for forecasting local labor market requirements and improved methods for assessing the potential of applicants for training should be developed. Standards of eligibility for training and aggressive job development policies should be adopted for MDTA, including identifying new occupations and organizing industry sectors for support of MDTA training. The concepts of central administration, base funding, and total vocational training entity

MDTA training facilities. The employment at enrollment feature of the JOBS program and the professional capabilities of the MDTA institutional training system should be legislatively correlated. A system of evaluation is suggested to assure employer capability to provide a socially acceptable work environment and continue the trainee's upward transition from disadvantaged. Technical assistance should be provided to employers to enhance their capabilities to support MDTA trainees. The system of support services needs to be extended to the trainee on the job. A meaningful management and accomplishment report system for both local Employment Services and training institutions is required.



CHAPTER 1
INTRODUCTION

The study for which this document is the final report is one of four evaluations which were authorized jointly by the Manpower Administration, Department of Labor, and the Bureau of Adult, Vocational and Technical Education, Office of Education, Department of Health, Education and Welfare. The titles of the three accompanying studies are:

1. Evaluation of Manpower Development and Training Skills Centers.

2. A Systems Analysis of the Manpower Development and Training Act Institutional Program.

3. A Study of the Outcomes of Manpower Development and Training Act Program Participants.

Two of the studies, Evaluation of Manpower Development and Training Skills Centers and Evaluation of the Relevance and Quality of Preparation for Employment under the MDTA Institutional Training Program conducted by Mentec, were contracted by the Office of Education, Department of Health, Education and Welfare. The other two studies were conducted under contract to the Office of Policy, Evaluation and Research, Manpower Administration, Department of Labor.

These studies represent a comprehensive attempt to evaluate the institutional component of the total training program authorized by the Manpower Development and Training Act (MDTA) which was first passed by the Congress in 1962. The title of this report delineates the area of evaluation assigned to Mentec Corporation.

Objectives

The objectives of this study as defined by the Office of Education (DHEW) and the Manpower Administration (DOL) are stated in the specifications of the evaluation study.

"1. To determine the extent to which (MDTA) institutional training programs prepare unemployed persons with education and skills needed in current labor markets.

2. To assess the quality of training offered and to identify those practices and programs which appear to be most effective in preparing trainees for the realities of the job market and which should be considered for replication.

3. To identify and examine those problem areas which inhibit or otherwise affect the quality and relevance of MDTA institutional training programs."

"The study will review and analyze the various activities and influences which determine the relevance and quality of institutional training programs within the selected labor market areas. Thus, the thrust of the study will focus on three major areas: (1) the action points, such as the determination of occupational programs, the content, the objectives and the performance of such programs; (2) the relevance of course and subject matter to identified needs; (3) the relevance of the types of occupational instructional programs to the labor market in which the trainees should be able to reasonably expect employment."

These are the supplemental objectives added by Mentec to the principal objectives quoted above:

1. To review and examine in detail the content of MDTA institutional training programs.

2. To determine the extent to which the staffs in the MDTA institutions recognize and understand the attitudes and goals of the disadvantaged trainees and make allowances for them.

3. To determine whether the instructional methods used (a) are appropriate to the age levels and experiences of the trainees and (b) are effective in motivating them to accept and assimilate the training.

4. To determine whether the language (communication) skills segment of basic education is relevant to the needs of the trainees.

5. To interview and observe institutional staff members, trainees, appropriate employment service personnel, employers, advisory committee members, CAMPS officials, cooperating agency representatives and others who may be

involved in order to ascertain attitudes and opinions about MDTA institutional training operations and to obtain data about practices, outcomes and results.

6. To observe occupational skills training and review related instruction materials, facilities and equipment, to provide a basis for evaluating quality and relevance of the training.

7. To observe certification, selection, and orientation processes in order to determine whether trainees are (a) eligible for referral, (b) capable of profiting from the training, (c) suitably equipped physically and mentally to qualify for the jobs in which they will be trained, (d) mentally adjusted to the job objectives.

8. To observe counseling procedures, and note their impact upon trainee attitude and behavioral changes.

9. To review the curriculum in occupational skills training in order to determine the degree of responsiveness to current labor market demand.

10. To observe the physical facilities in which MDTA training institutions are housed, and measure their suitability for use in programs of this type.

The Meaning and Significance of Relevance and Quality

The major elements controlling the direction and goals of this study are the terms "relevance" and "quality" as they relate to the processes of training carried on in the institutions involved in the MDTA program. Definition of these terms may more clearly indicate their significance in this study.

Thus, relevance, by dictionary definition, refers to the appropriateness, fitness, or pertinence of one thing to another. So, the evaluation activity was conducted with the thought in mind of determining how appropriate and how pertinent the training offered by the MDT institutions visited was to the labor market situation in each city, on the one hand, and to the desires, aspirations, capabilities, social and economic situations, and mobility of the trainees on the other hand.

Quality is an elusive term which may be interpreted variously, depending upon the

context in which it is used. Thus, Mentec defines it as "that characteristic of the MDT institutional training activity which assures that a trainee who satisfactorily completes a prescribed project or course is capable of competently performing the tasks of an entry level job in the occupation for which he was trained." Quality may be measured in a number of ways, objectively and subjectively, in terms of "indicators" which are grouped according to related factors such as the learning environment, the instructional practices, staff capability and performance, trainee learning and other behaviors, and the nature of the services provided. These "indicators" of the quality of the training which guided Mentec's evaluation team in its field data-gathering activities, and later on in its analysis procedures, will be discussed in a subsequent chapter of this report. Levels of quality will be arrived at and shown in quantitative as well as in descriptive terms.

Having arrived at the meaning of the two terms, we now turn to consideration of their significance with respect to the institutional training component of the manpower development and training program. Relevance is a factor which is important in all educational and training activities, but with more immediate influence upon the relatively short-term projects operated under the auspices of the MDTA institutional training program. Its absence or presence may be the single most important determiner of the failure or success of such an activity, or of its value to those who become involved.

To the trainee, it means the difference between being prepared to enter an occupation or to remaining unemployed and on the welfare rolls with all of the attendant connotations.

To the employer, the relevance of the training to demand for qualified workers may determine the capability of meeting production or service commitments.

To society, the relevance factor does have the effect of reducing the numbers of unemployed and thus producing self-sufficient contributors to its well-being, or it can serve to maintain large numbers of unproductive individuals supported by the use of public funds.

Overview of the Provisions of the MDT Act Pertaining to the Institutional Component.

The Manpower Development and Training Act of 1962, as amended, provides for institutional training in occupational skills for persons who are unable to qualify for full employment without training to upgrade their skills.

Institutional training provides for training in two areas: (1) occupational skills training, and (2) training in basic education, communication skills, and employment skills.

Institutional projects may be conducted on a full-time or part-time basis.

Who is eligible for MDTA institutional training – MDTA institutional training is directed toward persons 16 years of age or over who are unemployed, or underemployed, with special emphasis on youth, workers over 44 years of age, members of minority groups, and the disadvantaged. Current MDTA guidelines require that at least two-thirds of enrollees in MDTA institutional training projects be disadvantaged.

The Manpower Administration defines a disadvantaged trainee as a poor person who does not have suitable employment **and** who is either (1) a high school dropout, (2) a member of a minority group, (3) under 22, (4) over 44, or physically and/or mentally handicapped.

Responsibilities of the Departments – (DHEW and DOL with respect to the institutional training component)

U.S. Department of Labor:

Select and refer persons to institutional training projects.

Determine that there is a reasonable expectation of employment in the occupation for which the person is to be trained.

Provide allowances for training, subsistence, and transportation for those persons in need of such allowances in order to continue their training.

Provide counseling and placement services to those who have completed their training as well as follow-up studies to determine whether the programs provided meet the occupational training needs of the persons referred.

U.S. Department of Health, Education, and Welfare –

Provide MDTA institutional training through state education agencies in occupations for which persons are referred, and in basic education, communication skills, and employment skills. Provide this training at local level through public

education organizations or through arrangement with private organizations deemed appropriate by the state.

Institutional training projects may include counseling in addition to basic education and employment orientation.

From state and local Operations Committees consisting of representatives of the Employment Service and the educational agencies. Make policy for MDTA at state and local levels.

Provide supportive services in addition to basic education, counseling, and employment orientation.

Supportive Services

In addition to counseling, basic education, and employment orientation, supportive services may also be part of MDTA institututional training program. The MDTA authorizes minor medical services such as medical treatment, eyeglasses, and other protheses. Other services such as day care, legal aid, and mental health may be provided by arrangements with local agencies.

Skills Center

A recent development in MDTA institutional training has resulted in the development and designation of 70 Skills Centers throughout the country. Skills Centers usually derive from institutional training centers that are recommended for Skills Center designation by the state department of vocational education and the state employment service; jointly endorsed for Skills Center designation by the regional agencies of the Department of Labor and the HEW, and finally approved by the Departments of Labor and HEW.

Methodology of the Study

The manner in which the study was conducted was governed by the contract. The essential elements are:

Determine the extent to which the training provided in institutional MDTA projects is pertinent and appropriate to the needs of employers in the labor market areas of the country. (Relevance of the training)

Determine whether the trainees delivered by this system are capable of performing the tasks of the jobs for which they were trained in accordance with the realistic requirements of the world of work. (Quality of the training)

Determine the kind and degree of trainee responsiveness to the training; ie., to what extent does it coincide with trainee goals, and how well is it shaped to take into consideration trainee attitudes, educational achievement, and aptitudes. (Relevance of the training to the trainee)

Make the study national in scope, based upon a sample of institutional programs in twelve labor market areas.

Identify and examine problem areas which inhibit or otherwise affect the quality and relevance of training programs.

Identify practices and programs which appear to be most effective in preparing trainees for the realities of the labor market and which should be considered for replication.

Bearing these elements in mind, Mentec staff members proceeded to collect the data in a series of visits to the selected labor markers. Since the study was national in scope, the data were collected with the purpose of identifying broad practices and problems, and with no intention of comparing the training institution operations of the labor market areas with each other. Thus, each labor market area is identified by a number rather than by its name, in order to preserve anonomity as much as possible and to avoid comparison of practices. The exceptions to this approach are dictated by the desire to identify and describe those practices and programs which are outstanding and which may prove to be helpful to institutional training in other parts of the country. In these cases, the names of the city and the institution are given in order to give credit where it is due, and to provide maximum identification in order to facilitate communication with the appropriate agency which was carrying on the recommended practice at the time of Mentec's evaluation team visit to the institution.

Twelve labor market areas throughout the United States were selected by the

Department of Labor and the Department of Health, Education and Welfare. These were:

New England urban industrial area	Providence/Pawtucket, Rhode Island
Large Eastern urban area with Skills Center	Pittsburgh, Pennsylvania
Large Mid-Atlantic urban area	Baltimore, Maryland
Area showing Mexican-American concentration	Tucson, Arizona
Souther urban area	Tampa/St. Petersburg, Florida
Border urban area	Louisville, Kentucky
Small Southern urban area	Mobile, Alabama
Two large Mid-Western urban areas	Chicago, Illinois and Minneapolis/St. Paul, Minnesota
Mid-Western urban and rural areas	Omaha/Scottsbluff, Nebraska
Large Southwestern urban area	Houston, Texas
Western urban area	Portland, Oregon

The labor market areas named above were selected because they represent a national cross-section of training conducted under the Manpower Development and Training Act institutional training program component. However, Scottsbluff, Nebraska, is the only labor market area in this group which can be identified as truly representative of the rural, or semi-rural, segment of the MDTA institutions which were found in metropolitan labor market areas visited by the Mentec Evaluation Team.

Study Activities

Number of labor market areas visited	12
Number of cities visited	15

Number of training institutions surveyed	24
Number of projects evaluated	114
Number of classes evaluated	143
Number of trainees sampled for review and analysis of forms MA-101 and MA-102	1,493
Number of interviews conducted	511

State Training Administrator: MDTA	12
State Employment Service Representative: MDTA	9
Local Training Administrator: MDTA	15
Local Employment Service Representative: MDTA	15
Local Camps Committee Chairmen	12
Local Administrator: CEP, WIN, etc.	10
Employers	97
Occupational Skills Instructors	101
Basic Education Instructors	28
Orientation/Prevocational Instructors	14
Counselors	26
Trainees	172

Data collection instruments were designed with three end results in mind:

Recording of observations of appropriate administrative, instructional, counseling, placement, and supportive services practices.

Recording of interviews conducted with administrators on state and local levels, instructors, counselors, trainees, appropriate employment service personnel, employers, available CAMPS Committee chairmen, available advisory committee members, and representatives of agencies that were cooperating with the institutional component of the MDTA program.

Providing a check-list of documents and pertinent data which an evaluation team member was reminded to collect for return to Mentec's corporate headquarters.

Analyzing the collected data consisted of submitting copies of Form MA-101, **Applicant Information Record**, and Form MA-102, **Individual Termination/-Transfer Report**, for data processing treatment, in order to facilitate the categorization and cross-tabulation of the mass of data contained in them by examining the responses made to the items on the data-gathering instruments, categorizing these, and organizing them as findings and conclusions.

In addition to the MDTA institutional training projects which were located in public educational facilities, Mentec evaluation teams found similar projects operated by private trade and technical institutes. Skills Centers, which were operated as separate institutions in some labor market areas, were also found in a number of community and junior colleges.

In general, the activities described previously present the approach used by Mentec in conducting the study.

The study was conducted in three time phases:

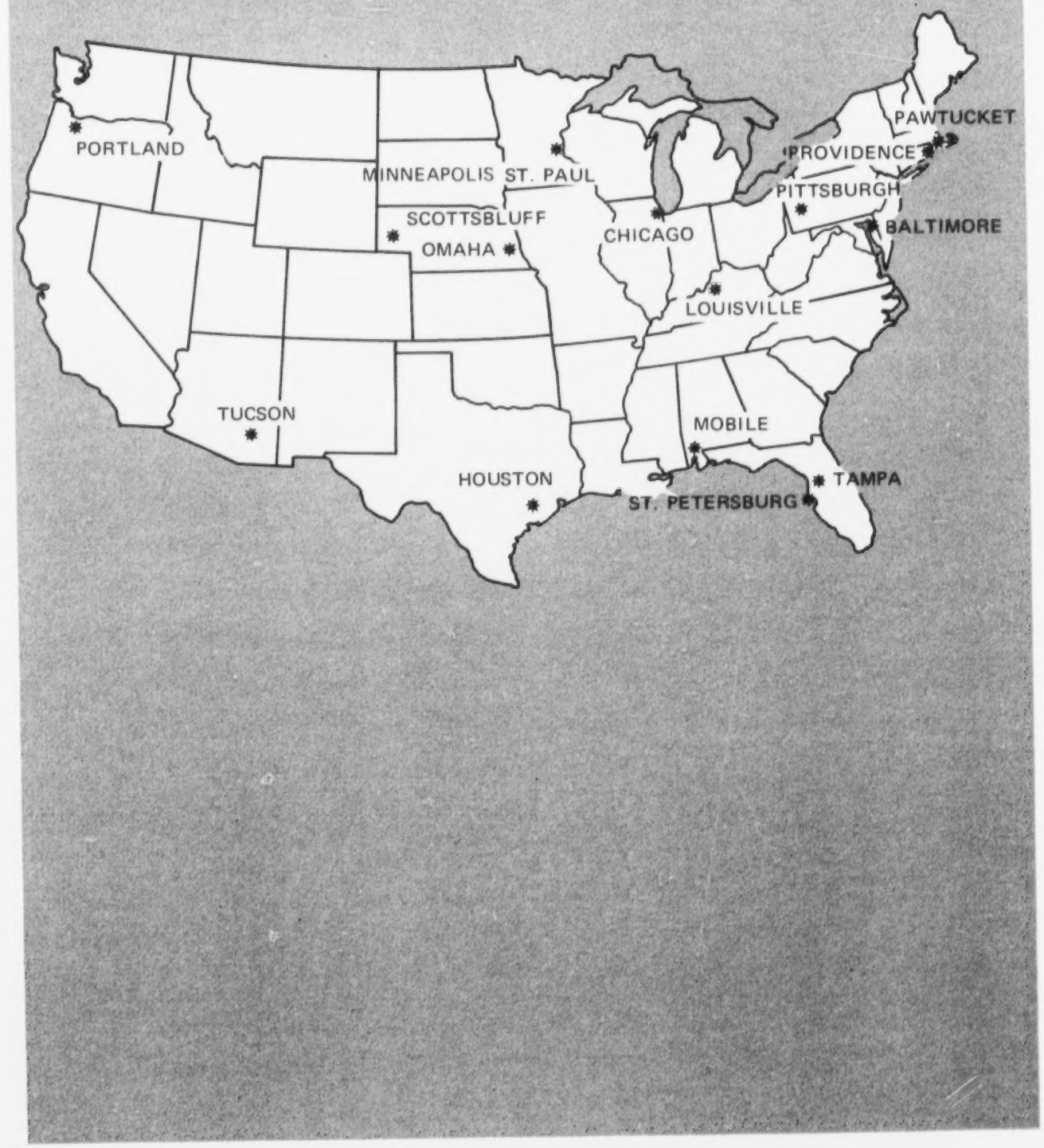
Phase I — July 1 – September 30, 1970
Gear-up, staff orientation and training, headquarters interviews, development of guides for field review, and pre-test of techniques and instruments.

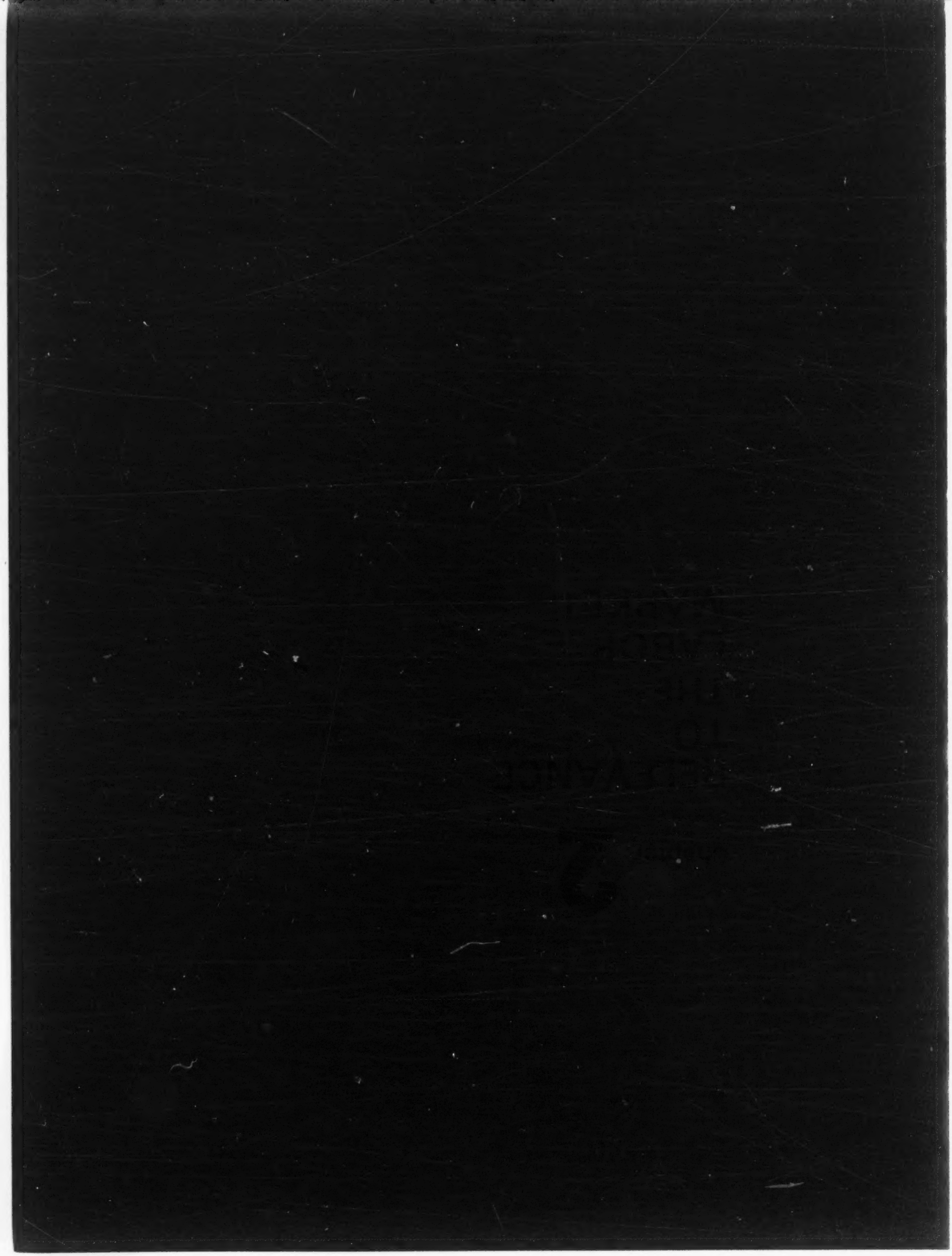
Phase II — October 1 – February 28, 1971
Field work and collection of data.

Phase III — March 1 – May 31, 1971
Data analysis and synthesis, organization and preparation of draft and final reports. Arrange and conduct final briefing conference.

TABLE 1

GEOGRAPHIC DISTRIBUTION OF LABOR MARKET AREAS STUDIED





CHAPTER 2

RELEVANCE TO THE LABOR MARKET

SUMMARY OF FINDINGS

In the evaluation of MDTA institutional training, the degree of relevance of training to the labor market and needs of the disadvantaged community are principal measures of program effectiveness. Job placement is central to both these issues and the results of MDTA training are directly measurable by the extent to which the job applicant is satisfactorily trained and placed in a job for which there is a demand for trained workers. The results of training are less directly measurable when the trainee either does not complete training or is not subsequently employed in the labor market.

Training conducted under institutional manpower development programs is relevant to the labor market at a level varying among occupational skills. There is also variation among areas by occupational skills. An analysis of relevance based upon national, available state, and institution information indicates that the level of relevance is lower than should be acceptable for federally funded programs. The opportunity for increasing effectiveness of the institutional manpower training system is greatest in those components for which the local Employment Service offices carry the principal responsibility.

PROGRAM ANALYSIS

A measure of program effectiveness is the level of achievement as measured by training completions and placements in meaningful employment.

The principal components of program operation that contribute to training completion and job placements are:

1. The extent to which labor market requirements are accurately determined

2. The extent to which training is scheduled to meet the forecasted requirements

3. The extent to which the trainees are selected and matched to occupational skills training projects

4. The extent to which training is successfully completed.

The information and data collected under this evaluation reflect considerable variance in program effectiveness when measured by the training completions and the placement rates by individual occupational skill.

The overall effectiveness of the program when measured in terms of training completions is relatively low. Approximately two-thirds of the personnel entering the program complete training. The overall effectiveness of the program when measured in terms of placement is also low since only approximately one-third of the trainees entering the program are recorded as having obtained jobs related to the training at the time of separation from the program.

The variations reflected in the information collected under the Mentec evaluation, by analysis of MA-102 forms which include entries regarding employment upon completion of training, indicate that high placement rates as a percentage of enrollments are being obtained for some skills while low rates are obtained for others within the same city. Table 2 illustrates these variations.

TABLE 2

VARIATIONS WITHIN THE SAME CITY

City and Occupational Skill	Number Enrolled	Number Completing	Number Employed*	Placement as % of completions	Placement as % of enrollment
City 09					
Certified Laboratory Assistant	18	17	13	76%	72%
Keypunch	20	16	6	38%	30%
City 11					
Welding	20	15	15	100%	75%
Auto Mechanic, Service Station	20	12	3	25%	15%

*At time of termination from training

The same data show that high and low placement rates are being obtained in different cities for similar skills as shown in Table 3 below.

TABLE 3

VARIATIONS AMONG SIMILAR SKILLS

City and Occupational Skill	Number Enrolled	Number Completing	Number Employed*	Placement as % of completions	Placement as % of enrollment
Automotive Repair					
City 01	20	9	6	67%	30%
City 03	20	12	12	100%	59%
Welding					
City 05	20	4	2	50%	10%
City 11	20	15	15	100%	75%

*At time of termination from training

Information published in state and national data sources reflects placement rates higher than those obtained from the MA-102. Examples shown in Table 4 include placements as reflected by a three-time follow up for one year after completion of training as compared to the MA-102 information which is reflective of placements at time of termination. The spread is 21 percent, the difference between the high of 56 percent and the 35 percent obtained from the MA-102.

TABLE 4

VARIATIONS AMONG SOURCES OF DATA

Source	Number Enrolled	Number Completing	Number Employed	Placement as % of completions	Placement as % of enrollment
Manpower Report of the President 1970	130.0*	85.0*	62.0*	73%	48%
Statistical Abstract 1970 (includes OJT)	220.0*	160.0*	124.0*[1]	78%	56%
a State Employment Service FY 1970	1193	899	485[2]	54%	41%
a State Dept. of Manpower Services FY 1970	2000	1112	967	87%	48%
a City Area Manpower Review FY 1970	2620	1889	1420[3]	75%	54%
Sample of 1493 MA-102 forms	1493	922	530[4]	57%	35%

*Thousands

[1] anyone employed over a follow up period of 1 year

[2] 3-month follow up

[3] 2-month follow up

[4] at time of termination from training

The variations by skill, the variations by city, and the relatively low placement rates shown by the different information sources suggest that the possibility of increasing total system effectiveness is within the realm of probability. It is the purpose of this evaluation to open for examination those components of the system in which suggested improvements can be applied. Increased program effectiveness may be achieved by these methods.

The evaluation indicates that in those cases where an effort has been made to determine labor market requirements for a large single employer by occupational skill, and to establish the MDTA program as a regular continuing source of new employees for a single employer, the completion and placement rates are improved.

An example of this is a project in one city which is training 144 persons for a large community agency. Thus far the completion rate is 100 percent and the placement rate is 100 percent. In another city, a single large manufacturing firm hired the entire group of trainees completing a course in machine set-up operation. This is one method of improving program effectiveness by insuring maximum and immediate relevance to labor market demand.

The table below presents the placement rates for selected occupational areas based on employment at time of termination from training for 1493 trainees.

TABLE 5

PERCENT PLACEMENTS BY SELECTED OCCUPATIONAL AREAS

BY ORDER OF RANK

Occupational Area	Rank	Percent Employed at Time of Termination
Health	1	53
Automotive	2	41
Drafting	3	35
Welding	4	34
Clerical	5	33
Electronics Repair	5	33
Food Service	6	29
Machinist	7	28

The high placement rate for health occupations may be attributed to the fact that training in these occupations is frequently conducted by hospitals which are also large employers. Trainees in these projects are hired by the same hospitals where they are trained, many having jobs before completing their training.

Standards of performance were not apparent during this evaluation. It is considered that establishment of standards of achievement for both completions and placements would be an effective way of influencing the forecasting, selection and referral, training, and job development functions for MDTA institutional training programs, and would enhance the relevance of MDTA training to the labor market.

A model operation relating to the functions which determine the effectiveness of

the program in achieving relevance to labor market requirements contains the following major components:

1. Forecasting component
2. Planning component
3. Trainee selection component
4. Training component
5. Job development component
6. Placement component

A composite description of the manner in which the component functions are carried out as determined from analysis of data, observation, and interview of program officials is presented briefly as follows:

Forecasting Component – The research and analysis unit of the Employment Service generally makes straight-line projections of manpower skill requirements for the area. These projections will, to the extent information is available, reflect population trends and economic changes. An inventory of job openings is often available but may not be current. Often the research and analysis section or the MDTA component in the local Employment Service office will conduct a telephone or mail survey of industry to determine labor shortages or labor requirements for some future period. In the preparation of manpower planning programs, this information from the Employment Service is used to prepare the CAMPS plans and the manpower training program requirements. These are recorded and submitted on the form MT-1. The occupational skill forecast requirements may reflect actual forecasted needs or may reflect projected levels of training.

Planning Component – The planning function is carried out by local and state CAMPS committees and by local and state Operations Committees. The local training institution usually prepares the application for institutional training, Form OE 3117. The Operations Committee at the state level generally consists of the MDTA representatives of the State Employment Service and the State Education Department, and the committee's functions are to provide continuing coordination among state and local MDTA groups and to approve MDTA training projects. The Employment Service representative is usually the authority in determining training requirements. Requirements submitted by local employment offices are usually approved; however, approval

may be attributed as much to prior agreement among coordinating agencies as to ineffective analysis of the requirements. There is little indication that comprehensive analysis of requirements is made, including the use of completion and placement records of past performance. Requirements are usually expressed and approved by individual occupational skill.

Trainee Selection – The interviewing and testing of disadvantaged individuals range from automatic assignment to MDTA training wherever vacancies might occur to testing by the Employment Service and further evaluation by the institution, including, in some cases, temporary assignment to classes to determine adaptability to the skill.

Training Components – Training in occupational skills is provided by the MDTA training institution in those occupations for which the Employment Service has certified a need for trained workers. The training institution determines the content of training, the length of training, and provides basic education, counseling, and such supportive services as can be arranged to expedite the trainees' successful completion of occupational skills training.

Training may be conducted by such organizations as the local public schools, community colleges, private training firms, labor organizations, and public agencies.

A recent development in MDTA institutional training is the Skills Center, a separate administrative entity which provides training for MDTA and which may provide training for other training programs, such as WIN and Model Cities, on a buy-in basis. Skills Centers, unlike non-Skills Center operations, have access to base funding for administration and annualized funding for training projects.

The Employment Service is directly involved in the training component through the process of selection of trainees for training and referral of trainees to specific occupational skills training projects. The extent to which trainees are suited for training directly influences the efficiency of the training system itself.

The survey shows that among occupational areas, health occupations have the highest completion rate. This may be attributed to the fact that screening for entrance into health occupations is frequently conducted by members of the medical professions in accordance with strict standards established by state boards.

Job Development Component – The general approach to job development for institutional trainees is referral to Job Bank openings or to individual positions which may be identified by the institution instructor or the Employment Service representative. Little awareness of future requirements resulting from new technology, operating

trends, or industry expansion was evident in the MDTA component of Employment Services which would increase job opportunities.

Placement Component – The level of attention given to the placement of trainees in jobs ranges from almost a career development approach in some health occupation programs to one of routine processing by the Employment Service and job seeking by the individual. Some institutions adequately prepare trainees for the job seeking process by inclusion of training for this experience in their training programs.

INFORMATION ANALYSIS

Forecasting Component – A U. S. Department of Labor Manpower Research Monograph titled Employer Manpower Planning and Forecasting states that, "Although the appropriate mix between public and private planning is not known, it is clear that both are needed, their functioning needs to be improved, and their relationship needs to be clarified, made explicit, and tested."[1]

There is evidence to support the need for an immediate action by the Labor Department for improving its capability for forecasting manpower requirements as it relates to training programs. Two sets of examples are provided to illustrate the need and opportunity for improving forecasting methods. The test applied is one of comparison of the forecasted requirements with job placements. An adequate forecasting system would by definition assure a reasonably high job placement opportunity for trainees. The first set of examples highlights low placements as a percentage of forecasted requirements and enrollment in training, by occupational skill.

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[1] H. G. Heneman, Jr., and George Seltzer – Manpower Research Monograph No. 19, **Employer Manpower Planning and Forecasting,** 1970, page iii.

TABLE 6

PLACEMENT AS A PERCENTAGE OF FORECASTED REQUIREMENTS IN CITIES

A. City 04 – Period: July 1, 1968 to June 30, 1969

Occupational Skill	JOB DEMAND		NUMBER OF TRAINEES		
	Total	MDTA Training Required	Enrolled	Completed	Placed
Nurse Aide	252	180	64	57	34
Percent:					
Placement as percent of total demand:				13%	
Placement as percent of MDTA training required:				19%	
Placement as percent of enrollment:				53%	
Placement as percent of completion:				67%	

B. City 05 – Period: March 1, 1969 to June 30, 1970

Occupational Skill	JOB DEMAND		NUMBER OF TRAINEES		
	Total	MDTA Training Required	Enrolled	Completed	Placed
Auto Skills	400	280	45	25	7
Percent:					
Placement as percent of total demand:				2%	
Placement as percent of MDTA training requirement:				3%	
Placement as percent of enrollment:				16%	
Placement as percent of completion:				28%	

C. City 05 – Period: March 1, 1969 to June 30, 1970

Occupational Skill	JOB DEMAND		NUMBER OF TRAINEES		
	Total	MDTA Training Required	Enrolled	Completed	Placed
Welder	100	503	31	17	9
Percent:					
Placement as percent of total demand:				9%	
Placement as percent of MDTA training required:				18%	
Placement as percent of enrollment:				29%	
Placement as percent of completion:				53%	

A second example uses the 1970 performance from a cumulative record for the MDTA institutional training program in one state. Figure shows, assuming that responses to the three-month follow up are equally applicable to the entire population, that, of the total enrolled in training in 1970, 54 percent, or 485 of the 899 trainees who completed training were employed after three months.

TABLE 7

SELECTED STATISTICS MDTA TRAINING

Period - October 1962 - June 1970

INSTITUTIONAL TRAINING FOR ONE STATE

Fiscal Year	Training Positions Approved	Total Enrolled	Current Enroll-ment	Completions	Responded to 3 Months Follow Up		
					Total	Employed	% Employed
1963	311	326	0	213	206	194	94.2
1964	964	980	0	685	628	559	89.0
1965	2143	2043	0	1277	868	574	66.1
1966	996	1003	0	742	538	383	71.2
1967	1151	1220	0	816	557	422	75.8
1968	1507	1640	0	1163	936	470	50.2
1969	727	772	58	477	376	259	68.9
1970	1876	1396	203	899	274	149	54.4
Total	9675	9380	261	6272	4383	3010	68.7

Source: State Employment Service Publication.

Assuming that the forecasted requirement was equal to or higher than the number of training positions approved, only 54 percent of the requirement has been met.

Detailed information for all occupations in a labor market area, which is needed to forecast with accuracy the training requirements for MDTA, is lacking. There is further evidence that where such information is available it is not used to the fullest extent. For example, in one city it was found that a complete study of the labor market supply and demand had been made in 1967. This study, a cooperative effort of the Employment Service and a university, projects labor market expansion, by occupation, for a 5-year period, and includes a comprehensive survey and 5-year projections of training by employers and by training institutions. While this study is an example of the kind of extensive labor market analysis needed in forecasting training requirements for MDTA institutional training, it was not used for forecasting. The study identifies entry level jobs in all industrial categories. It includes a comprehensive

survey of employers to determine hiring standards for entry level jobs and lists over 7,000 entry level jobs which can be filled by disadvantaged persons. It is significant that the study includes specific recommendations for meeting the demands of the labor market. One of the recommendations is quoted here as particularly appropriate to this discussion:

> Balancing job demands against worker supply or training output for the [City] Area during the next five years, 1967-72, the indication is that company training programs will supply one-sixth of yearly requirements, public and private training schools or institutes another one-eighth, and formal apprenticeship an insignificant number (200) except for less than a half-dozen construction and metal crafts. The large training deficit which looms, threatens to lower the efficiency of companies and heavily retard growth of the [City's] economy . . . .The public and private training centers need to realign resources from over-training in a few programs . . . and establish new training programs especially for those jobs, both technical and skilled, identified as of special significance to technological innovation . . . .These actions are needed to revitalize and make present programs almost feeble of impact, a mighty force for the supply of trained craftsmen to the [City] job market.

In spite of the most useful and detailed information contained in the report, there is evidence that these data and the recommendations of the analysts have not been utilized to make the MDTA training system more efficient in the area. The MDTA system in this labor market area is operating at a level of 37 percent effectiveness based upon placements at time of termination of training as a percentage of input.

A similar study of occupational outlooks for 191 selected occupations was conducted in another labor market area in 1966. In spite of the fact that this comprehensive survey projects occupational trends only to 1968 and their survey has not since been updated, it continues to be the basis for planning MDTA projects in the area. The result is that MDTA is operating at a level of about 30 percent in this labor market area, based on placement at time of termination as a percentage of input.

Planning Component – The Employment Service, as a member of the CAMPS Committee and the Operations Committee, is the principal agency which provides labor market and forecast information and is the operating agency which usually exercises its authority to make the final decision in recommending manpower projects for federal

funding.

It is evident that most CAMPS committees have no independent capability for determining quantitative manpower needs. The certification of training requirements in occupational skill shortage areas would, if the foundation for determining skill shortages were an auditable function, appear to be a reasonable basis for approval of training in the recommended occupational skill. After examination of the methods used for forecasting, the validity of such determinations as a foundation for expenditure of federal funds and human resources is questioned. It is probable too that job requirement indicators such as newspaper advertisements and Job Bank vacancies are in fact unreliable indicators of skill shortages. They are instead indicators of a desire of an employer to hire an employee, a condition which derives from needs for additional, needs for different, or needs for replacement personnel. For example, experience has shown that within federal agencies which are relatively stable, a 3 percent to 5 percent lapse rate is normal. In a tight economic market this rate can be higher as employers seek to improve the quality of their labor force. In any event, analysis of the forecasting methods and the methods for determining labor shortage certifications used in MDTA programming and planning is warranted.

The CAMPS plan for one state in presenting the plan for Fiscal Year 1971 for a two county area served by one Employment Service office states:

> **Occupational Surpluses** – Among occupational areas wherein applicants greatly exceed openings are the following: [See column 2, Table 8.] Many of these applicants lack sufficient skills to compete successfully for available openings.

Information on forecast of training requirements for specific occupations for projects carried out in 1968 and 1969 furnished by the Employment Service for the same area reflected the following shortages: [See column 1, Table 8.]

These data are illustrated in Table 8. The table also presents occupations in which training was being conducted by the local MDTA training institution and the placements in jobs as a percent of enrollment.

TABLE 8

SURPLUSES, SHORTAGES, AND MDTA TRAINING PROJECTS IN TWO LABOR MARKET AREAS FOR FY 1970

A. City 06 (1 labor market area)

(1) Occupational Shortage	(1) Occupational Surplus	(3) MDTA Occupational Training Project	(4) Percent Placed of Enrollment
Medical Clerk, Entry (85) *	Clerks	Medical Clerk	31%
Sales Persons, General (345) *	Sales Persons	Sales Persons, General	56%
Stenographers (230) *	Typists	Typists Stenographer	55% 50%
Auto Service Station Mechanic (147) *	Auto Mechanic Helper	Auto Service Station Mechanic	43%

B. Cities 03-04 (1 labor market area)

Occupational Shortage	Occupational Surplus	MDTA Occupational Training Project	Percent Placed of Enrollment
Clerk, General Office	Clerk, General Office	Clerk, General Office	51%
Baker (lack of qualified help)	Baker helper (seasonal slack in demand)	Cook-Baker	15%
Sales Clerk	Sales Person, General	Sales and Stock	65%

*Number of trained workers needed

It is evident from these data that an opportunity to improve the system of forecasting labor market needs and the system of planning for MDTA projects exists.

Analysis of occupational skills training conducted by both institutional training activities and Skills Centers included in the Mentec evaluation reveals that the similarity of occupational skills in which training is being conducted may be attributable to

reasons other than needs of the labor market. It is recognized that the establishment and administration of training in skills which identify with demand or high turnover occupations are generally less complex. The challenge in preparing a curriculum, employing instructors, and measuring proficiency is less for occupational skills of low complexity, such as auto repair and clerical occupations, than for such skills as medical equipment technician, and others. There are over 700 occupations identified by the Bureau of Labor Statistics in the Occupational Outlook Handbook but this analysis indicates that in the 12 MDTA program areas evaluated, 75 percent of the projects offered were in 10 occupational areas. These 10 areas are listed below:

1. Clerical (Clerk, General and Typists)
2. Welding
3. Auto Mechanic
4. Auto Body Repair
5. Machine Trades
6. Radio and TV Repair
7. Food Service
8. Nurse Aide
9. Licensed Practical Nurse
10. Drafting

Training Selection Component – The responsibility for selection of individuals to attend MDTA training programs and the referral of individuals to occupational skills training projects is a function exercised by the Employment Service. In some locations there is a high degree of cooperation in endeavoring to fit trainee capabilities to available occupational skills training opportunities. There is less evidence, however, of efforts to fit trainees to occupational training requirements that are both a labor market requirement and a suitable skill for the trainee.

A summary for one city reflects referrals of 463 of whom 74 did not enroll. Of the 389 who did enroll in training, 116 had dropped out, 130 had completed training, and 145 were still enrolled. Among the reasons for termination were absenteeism 57, lack of progress 12, unknown 15, illness 7, misconduct 2, care of family 9, pregnancy 2, and other reasons 2. Of the 130 graduated, 66 were employed in training-related jobs at the completion of training. Within this overall group, the record reflects low retention and low completion rates in occupational skills for which adequate means are available to determine occupational aptitude.

The following table presents a summary of reasons for termination in this city.

TABLE 9
PERFORMANCE RECORD FOR MDTA INSTITUTIONAL TRAINING
FOR THE PERIOD OCTOBER 20, 1969 to AUGUST 31, 1970
CITY 14

Occupational Skill	Input	Completion	Non-Completions	Placements	Still Enrolled
Welder Cluster	63	18	32	16	13

TERMINATION REASONS:

22 Absenteeism
3 Lack of Progress
4 Unknown
3 Obtained job

Clerical Cluster	121	49	29	14	50

TERMINATION REASONS:

9 Absenteeism
3 Illness
4 Unknown
1 Misconduct
7 Care of Family
3 Lack of Progress
1 Obtained Job
1 Pregnancy

Training Component – Analysis of the effect of the Employment Service function in MDTA training can be derived from the retainability aspects of the program. Retention is also a function of selection and referral, and the levels of retention appear to have significance. A general review of available information relating to dropout or termination from training reveals that terminations are primarily for reasons other than quality of training or administration of the training institution. Examples of the reasons for termination indicate that over 75 percent of the terminations are due to absenteeism and lack of progress. These are both causes that could be reduced by better selection and assignment practices. Improved counseling and support services during training will also contribute to increased retention.

Job Development Component – There is little valid data to permit analysis of the job development component in the assessment of relevance to the labor market. The approach generally appears to be one of training for occupations in which a recurring labor shortage could be anticipated and of expecting that the vacancies and the training output will seek each other out at the appropriate time. To illustrate one of the drawbacks of this approach, Table 10 presents a comparison of the placement record of MDTA institutional training with the records of other manpower programs in one labor market area.

TABLE 10

COMPARISON OF NUMBER OF JOB PLACEMENTS
FOR MDTA INSTITUTIONAL TRAINING PROGRAM AND
OTHER MANPOWER PROGRAMS IN ONE LABOR MARKET AREA

Program	Job Placements
1. Adult Education Senior Citizens	2700
2. Jobs	1053
3. Opportunity Council	405
4. Neighborhood Youth Corps (Summer)	380
5. Probation & Parole Commission	365
6. NYC (in school)	180
7. MDTA Institutional	173
8. WIN	49 (195)

It is apparent that MDTA is competing with at least five other job placement programs of considerably greater magnitude than MDTA institutional training in the area.

There are outstanding examples, however, of efforts by local employment offices, by individual MDTA administrators at the local level, and by institution instructors to assist the matching process. Employment Service officials and the Skills Center in Houston appear to have recognized the need for extensive effort in job development and have organized a unit to concentrate on the task of identifying job opportunities. This includes consideration of training relevance to labor market requirements.

Placement Component – The placement function is shared by the local Employment Service office, which has the primary responsibility for placement, and the training institution, which is motivated principally by the urge and necessity to demonstrate institutional effectiveness through placement of the trainees in meaningful jobs. The motivation is individual and social rather than management motivated. Overall, it is considered there was little system concern with use of placement rates as a measure of program effectiveness. It appears that a complacency develops on the premise that some ultimate good will derive from the full or partial participation in the program by sufficiently disadvantaged persons.

An analysis of the overall placement rates by city indicates that some cities do significantly better than others. Table 11 illustrates this comparison.

TABLE 11

PERCENT EMPLOYED AT TIME OF TERMINATION BY CITY, BY ORDER OF RANK

City	Rank	Percent Employed (Based on Enrollment)
03	1	60
06	2	57
11	3	55
09	4	49
08	5	41
07	6	37
02	7	31
13	8	30
01	8	30
14	9	25
10	10	23
05	11	14
12	12	9
04	information not available	
15	information not available	

Source: Form MA-102 for 1493 trainees.

While quantitative relevance is lower than should be acceptable, the study indicates that, from the point of view of employers, MDTA has potential for meeting their manpower needs. Eighty-four percent of employers interviewed had hired MDTA trainees into occupations which these employers listed as occupations of continuing demand in their businesses.

It should be noted that the sample of employers was too small (97) to consider this a survey of labor market demand. Further, it can be assumed that a bias exists in the data collected from these employers relating to the relevance of MDTA training to their manpower needs, since the list of employers only includes those who have hired MDTA trainees. The data should therefore be interpreted in the light of these qualifications.

In spite of these considerations, it is evident that a demand for trained manpower exists and that MDTA has a potential for meeting the demand.

The extent to which MDTA trainees are trained to meet the job specifications of an occupation is discussed in Chapter III. For the purposes of this discussion, however, the final determination as to qualitative relevance should be based on the trainee's retention on the job, his advancement, and his subsequent upward movement in the social and economic scales. The Mentec study includes case information which is significant but insufficient for statistical confidence.

The following cases of retention and advancement were cited by employers:

One trainee has advanced to Assistant Supervisor.

Another is president of the union.

An MDTA trainee is now a journeyman tool maker.

An employer reports that one MDTA trainee was "pirated" by a competitor and advanced to foreman.

In a large firm manufacturing nuclear power equipment, four MDTA trainees have advanced to technician grade at the inspection level; five have advanced to the highest welder grade.

At another firm, two cases were cited: one MDTA trainee employee had been with the company for four years, and another for two and a half years, and both are working at wages above the union scale.

Another MDTA trainee started at $75 per week a year ago and is now earning $132 per week.

For each project included in the survey, MA-102 Forms were collected for 20 trainees most recently enrolled and terminated for any reason. Forms for a total of 1493 trainees were submitted to electronic data processing.

Results of the analysis show that 35 percent of the trainees were employed at time

of termination in training-related and non-training-related jobs. By applying the statistical procedure of determining the 90 percent "confidence interval," a 90 percent confidence that the rate of employment for the entire population at time of termination lies between 32.5 percent and 37.5 percent is obtained. The same level of confidence is obtained for the overall completion rate of 62 percent. A 90 percent confidence that the overall completion rate lies between 59.5 percent and 64.5 percent is assured.

It is recognized that Form MA-102, Transfer and Termination Report, is not intended to be a record of job placement. Nevertheless, the MA-102 remains the single record available for all projects for any given time period. It is considered a good test point for program effectiveness as lack of employment upon completion of training returns the trainee to a disadvantaged situation.

These data have therefore been used as indicators of performance and should be interpreted in the light of this technical discussion.

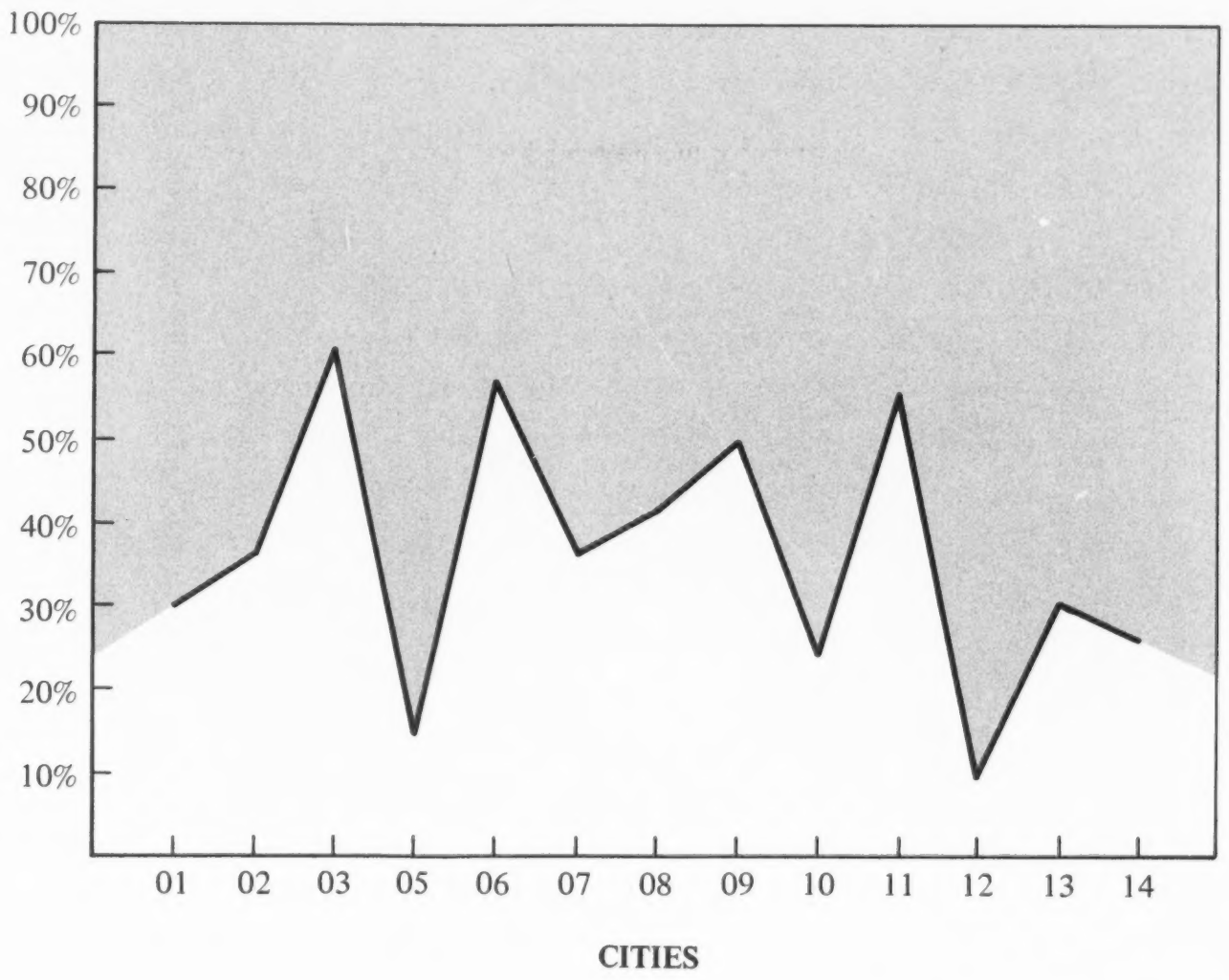
The relevance of the types of occupational instructional programs to the labor market in which the trainees should be able to reasonably expect employment is demonstrated by the analysis made of occupational skills training projects, their applicability to the labor market as demonstrated by job placements effected, and the accuracy with which occupational trends and job opportunities are predicted.

To provide visual insight into the observations made in the foregoing section, four charts reflecting the levels of achievement as demonstrated by placements as a percentage of enrollments follow. Following these charts are occupational details by city.

In tables 12 and 14 the placements as a percentage of enrollments are shown by city and by occupational area. Tables 13 and 15 show training completions as a percentage of enrollments by city and occupational skill. The shaded area in each chart represents the area of improvement potential. These charts illustrate the opportunity for increasing program effectiveness by increasing the percent of placements and the percent of completions.

TABLE 12

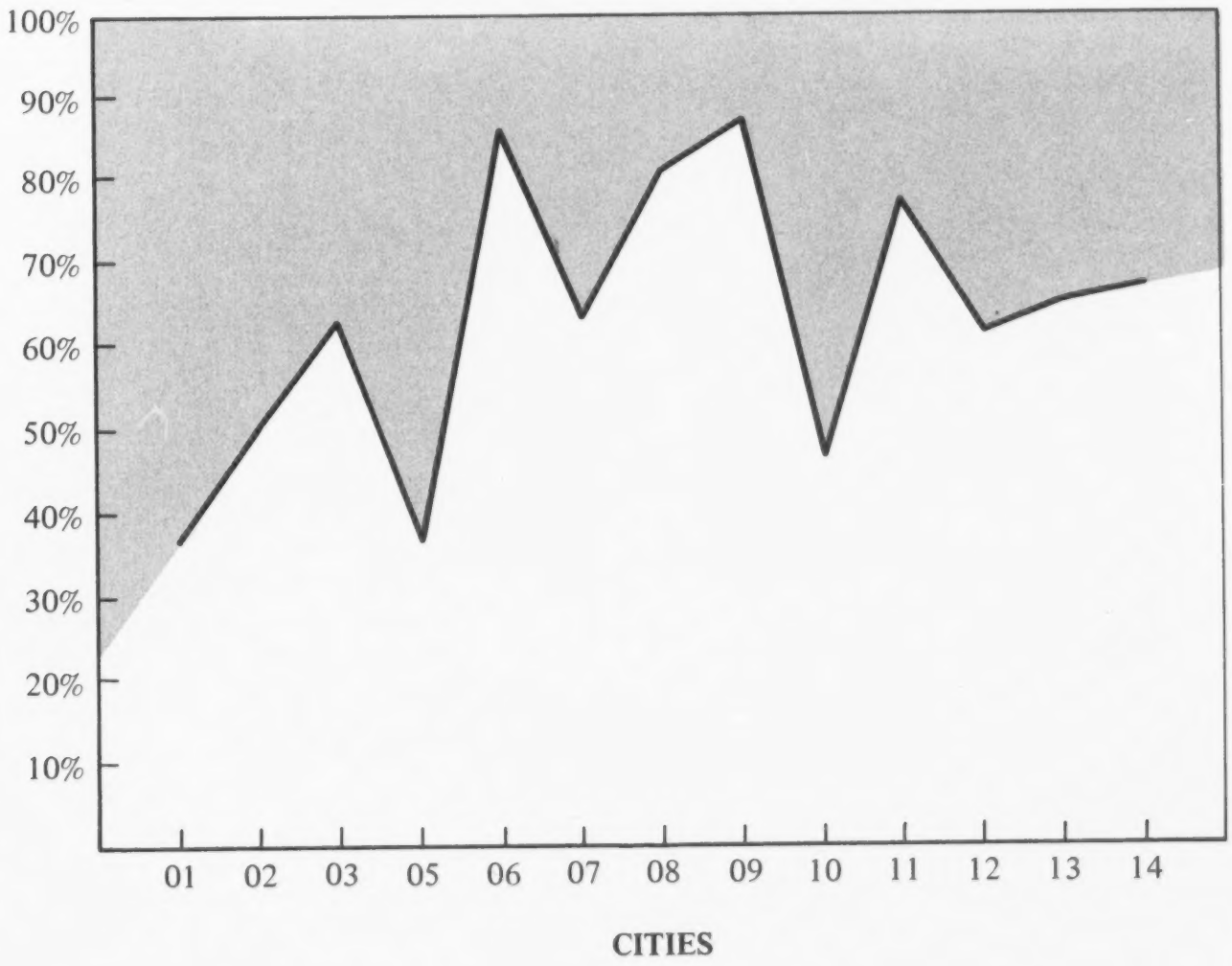
PLACEMENT (AT TIME OF TERMINATION) AS A PERCENTAGE OF ENROLLMENT, FOR OCCUPATIONAL SKILLS TRAINING PROJECTS EVALUATED FOR WHICH DATA ARE AVAILABLE, BY CITY



Data not available for two cities.

TABLE 13

COMPLETIONS AS A PERCENTAGE OF ENROLLMENT, FOR OCCUPATIONAL SKILLS TRAINING PROJECTS EVALUATED FOR WHICH DATA ARE AVAILABLE, BY CITY



Data not available for two cities.

TABLE 14

PLACEMENT (AT TIME OF TERMINATION) AS A PERCENTAGE OF ENROLLMENT, FOR OCCUPATIONAL SKILLS TRAINING PROJECTS EVALUATED FOR WHICH DATA ARE AVAILABLE, BY OCCUPATIONAL AREA

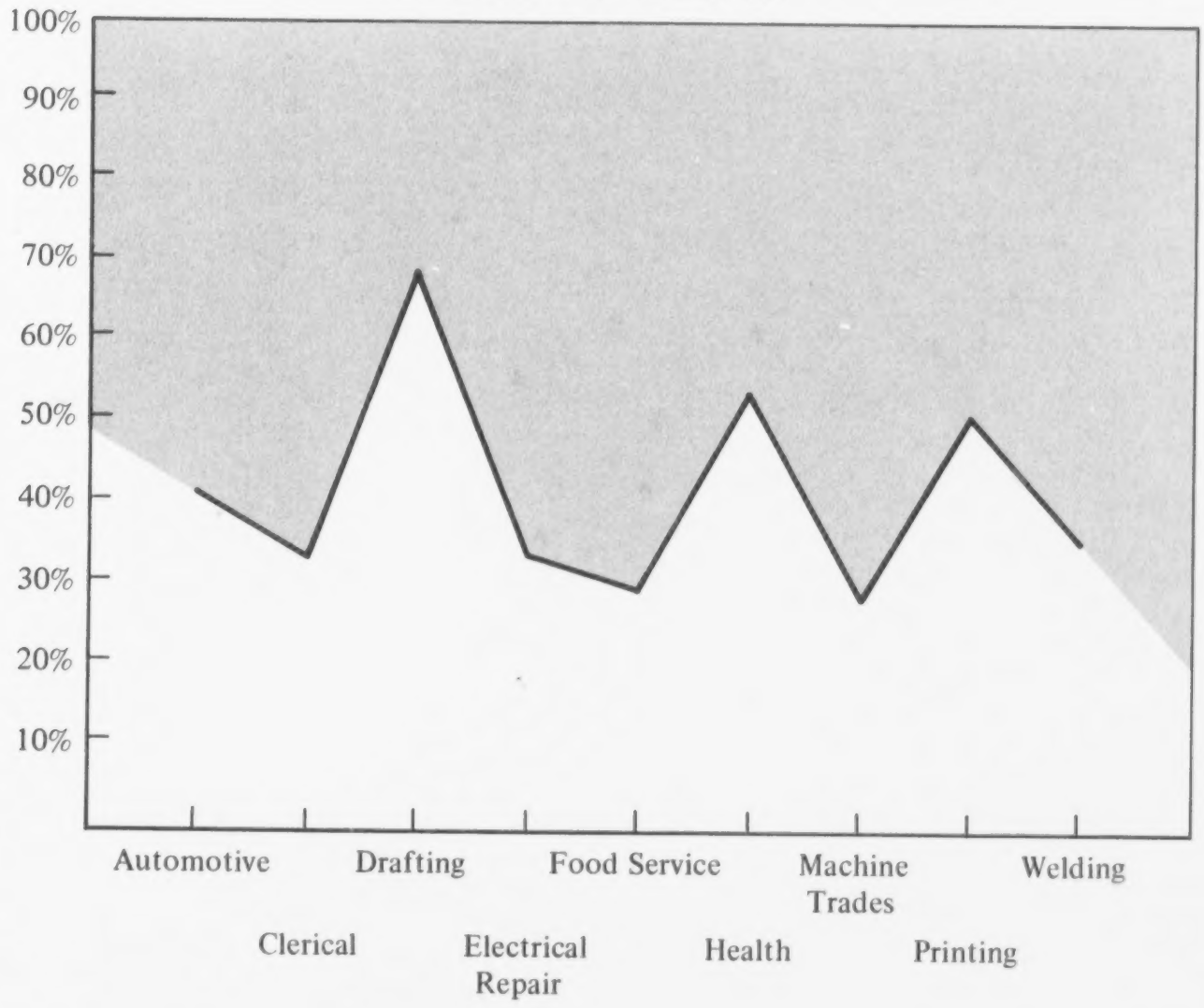
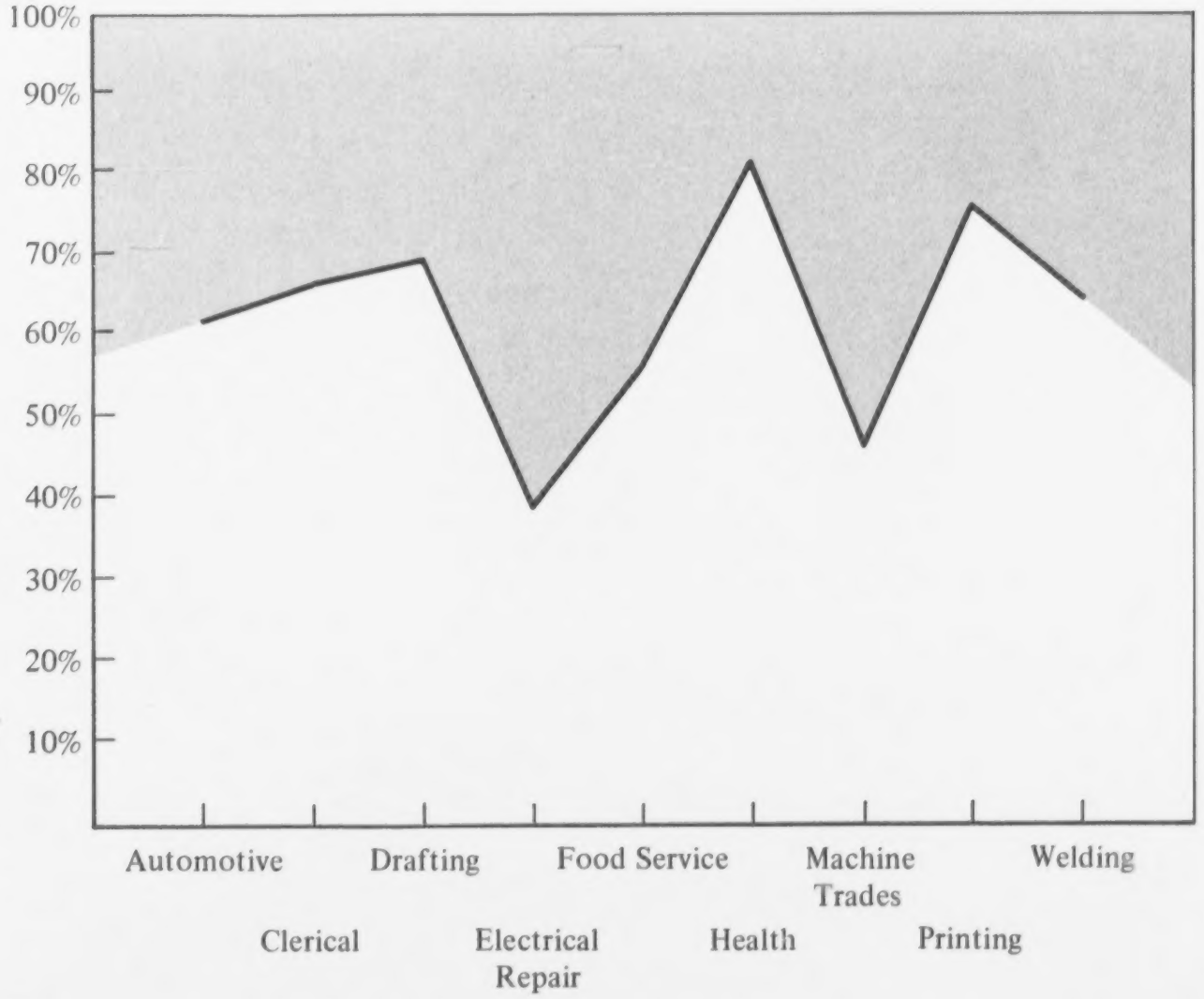


TABLE 15

COMPLETIONS AS A PERCENTAGE OF ENROLLMENT, FOR OCCUPATIONAL SKILLS TRAINING PROJECTS EVALUATED FOR WHICH DATA ARE AVAILABLE, BY OCCUPATIONAL AREA



OCCUPATIONAL AREA

TABLE 16

TRAINING REQUIREMENTS, NUMBERS TO BE TRAINED, PERCENT COMPLETIONS, AND PERCENT EMPLOYED AT TIME OF TERMINATION OF SELECTED OCCUPATIONAL SKILLS TRAINING PROJECTS, BY CITY

Occupational Skills Training Project, By City	Training Requirements, as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Termination
01					
1. Auto Body Repair	NA	Yes	NA	45	30
2. Drafting (mechanical)	NA	Yes	NA	0	0
3. Electronics Mechanic	NA	Yes	NA	15	25
4. Production Machine Operator & Set-Up	NA	Yes	NA	50	25
5. Welding, Combination	NA	Yes	NA	60	55
02					
1. Automotive Repair and Service	50	Yes	30	40	40
2. Clerk, General Office	400	Yes	175	15	20
3. Clerk-Typist	400	Yes	NA	70	25
4. Cook	75	Yes	75	55	25
5. Electronics Repair	60	Yes	40	25	30
6. Keypunch	NA	Yes	NA	65	40
7. Machine Trades	60	Yes	40	50	40
8. Welding	60	Yes	40	40	10
03					
1. Air Conditioning	45	Yes	20	80	70

N/A – Not available

Occupational Skills Training Project, By City	Training Requirements, as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Termination
2. Auto Mechanic	105	Yes	20	80	70
3. Sales & Stock Management	250	Yes	20	65	65
4. Secretary	45	Yes	20	48	52
5. Welding	45	Yes	20	75	65
04					
1. Auto Body Repair	53	Yes	20	NA	NA
2. Auto Mechanics	80	Yes	20	NA	NA
3. Clerk, General	35	Yes	20	NA	NA
4. Cooking & Baking		Yes		18	9
5. Nurse Aide	166	Yes	60	53	7
6. Welding	51	Yes	20	NA	NA
05					
1. Automotive Cluster	280	NA	100	55	20
2. Clerical Cluster	2600	NA	50	60	20
3. Licensed Practical Nurse	200	NA	40	NA	NA
4. Machine Tool Set-Up and Operator	150	NA	50	14	10
5. Welding, Arc	100	NA	50	20	10

N/A – Not available

Occupational Skills Training Project, By City	Training Requirements, as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Termination
06					
1. Auto Body Repair	**	No	15-30	NA	NA
2. Auto Mechanic	**	Yes	15-30	65	45
3. Clerical Cluster	"more than 30"	Yes	30	85	55
4. Community Service Occupations	**	No	144	100	100
5. Electronics (TV Technician)	**	No	15-30	100	93
6. Health Occupations	66	Yes	60	75	65
07					
1. Auto Body Repair	2	No	27	61	47
2. Auto Mechanic	NA	Yes	27	75	45
3. Clerk-Typist	NA	Yes	120	89	44
4. Dental Assistant	92	Yes	12	NA	NA
5. Food Service Occupations	NA	Yes	40	69	56
6. Reproduction Specialist	NA	Yes	36	60	40
7. Surgical Technician	60	Yes	20	NA	NA
8. Tabulating & Computer Programmer	NA	Yes	75	70	10
9. Welding	NA	Yes	36	70	55

N/A – Not available
**Trng. Req. certified by MT-1 in narrative

Occupational Skills Training Project, By City	Training Requirements, as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Termination
08					
1. Auto Body Repair	80	Yes	5	100	57
2. Auto Mechanic	330	Yes	10	100	92
3. Building Maintenance	325	No	15	100	60
4. Clerk, General Office	245	No	110	92	8
5. Drafting & Related Arts	140	Yes	30	100	67
6. Welding	225	Yes	30	100	25
09					
1. Certified Laboratory Assistant	50	No	50	95	72
2. Clerk-Typist	*	Yes	45	100	43
3. Keypunch	*	Yes	15	80	30
4. Laboratory Liaison Technician	NA	No	15	91	91
5. Licensed Practical Nurse	*	No	333	95	65
6. Machine Set-Up Operator	*	Yes	40	NA	NA
7. Machinist, Tool & Die Maker	90	Yes	90	80	80
8. Offset Pressman	450	Yes	45	94	63
9. Welding	60	Yes	40	70	9

N/A – Not available
*Narrative in MT-1 documents continuing demand

Occupational Skills Training Project, By City	Training Requirements, as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Termination
10					
1. Auto Mechanic	8600	Yes	50	45	20
2. Drafting, Detail	*	Yes	50	60	25
3. Medical Records Clerk	*	Yes	50	40	30
4. Metal Fabrication and Assembly (Fitter)	*	Yes	50	60	40
5. TV Service & Repair	*	Yes	50	45	10
6. Welding, Arc	*	Yes	60	50	10
11					
1. Auto Body Repair	50	No	20	80	65
2. Auto Mechanic, Service Station	20	Yes	20	60	15
3. Cashier-Checker	30	No	15	94	41
4. Electrical Appliance Repair	30	No	20	85	85
5. Licensed Practical Nurse	65	Yes	15	74	58
6. Welding	190	Yes	40	75	75
12					
1. Cook	15-24	Yes	15	44	9
2. Machine Trades	15-25	No	15	36	9
3. Welding	60	No	60	75	25

N/A – Not available

Occupational Skills Training Project, By City	Training Requirements as Reported on MT-1	Shortage Occupation	Number to be Trained as Reported on MT-2	Percent Completions	Percent Employed at Time of Terminations
13					
1. Auto Body Repair	220	Yes	15	61	44
2. Clerk, General Office	1303	Yes	60	NA	NA
3. Keypunch	20	Yes	20	98	14
4. Loomfixer	123	Yes	12	91	64
5. Screw Machine Operator	92	Yes	30	52	14
6. Turret Lathe Operator	93	Yes	30	NA	NA
7. Welding	15	Yes	30	85	40
14					
1. Auto Mechanic	NA	No	NA	65	20
2. Bookkeeping	NA	Yes	NA	NA	NA
3. Clerk-Typist	NA	Yes	NA	60	30
4. Radio & TV Repair	NA	Yes	NA	NA	NA
5. Secretary	NA	Yes	NA	NA	NA
15					
1. Auto Mechanic	518	Yes	150	90	40
2. Business Education	518	No	150	90	40
3. Farm & Light Industrial Equipment	518	No	150	90	40
4. Welding (Structural Occupations)	518	Yes	150	90	40

N/A – Not available

CONCLUSIONS AND RECOMMENDATIONS

The data and information collected during this evaluation, as they relate to the functions of the Employment Service in the manpower training system and to the relevance of the training system to labor market requirements, indicate that the overall completion rates as a percentage of input are lower than should be acceptable for a federally funded program. In addition, the relevance of the program to labor market requirements is low as reflected by job placements, both as a percentage of training completions and as a percentage of input into the program.

It has been shown that high placement rates can be obtained in certain occupational skills. It has been shown that relatively high placement rates can be obtained by certain institutions even in skills which have lower placement rates in other cities. It appears that the establishment of a national standard at the level of 85 percent is necessary. This standard should apply to state, institution and occupational skill programs on a fiscal year basis. The standard of 85 percent represents the employment rate based on the number of enrollments, but not including those trainees who drop out within the first five days of enrollment. Placements as a percentage of completions should be at the 90 percent level. Programs by occupational skill that fail to maintain these levels of accomplishment should be replaced.

The several manpower training programs developed to aid disadvantaged persons each has had its own significant impact on this social problem. The institutional portion, including Skills Centers of the Manpower Development and Training Act program required expenditure of $197.0 millions in 1969. The cost of institutional programs is directly related to the need for separate facilities in which this type of training can be accomplished.

The pool of disadvantaged persons has been estimated to be in excess of seven million. There were, for example, 9.7 million poor households in 1968. Other indicators of disadvantaged persons are:

School dropouts unemployed	39,000[1]
Persons below poverty level, Negro and other	6,729,000[2]

[1] Handbook of Labor Statistics, 1969

[2] Statistical Abstract, 1970

Unemployed in urban poverty neighborhoods	347,000[3]
Persons below poverty level, ages 25 - 64	7,600,000[4]
Total persons unemployed	4,636,000[5]

The pool of disadvantaged is greater than the training capacity of the several manpower training programs. Within this pool there are trainable personnel of varying aptitudes. The resources of the institutional training program, including facilities, are an investment of value. It is considered that these facilities should be used for the training of those members of the disadvantaged community that are appropriate for training and entry into specific occupations. The occupations for which these persons should be trained are those demand occupations which will not be satisfied by other training programs.

An 85 percent effectiveness rate can be obtained under this program by improvement of the methods used within each of the system components. The management of the program should be oriented to management by occupational categories as distinct from specific skills. It has been demonstrated that this level of effectiveness in terms of placements as a percentage of input, and placements as a percentage of completions can be achieved.

TABLE 17

ACCEPTABLE EFFECTIVENESS RATES

Occupation	Input	Percent Completions	Percent Placements
1. Color TV Serviceman	15	100%	93%
2. Auto Mechanic	10	100%	92%
3. Machinist	20	80%	80%

[3] Handbook of Labor Statistics, 1969

[4] Statistical Abstract, 1970

[5] Statistical Abstract, 1970

Conversely unacceptable effectiveness rates have been obtained, as illustrated below.

TABLE 18

UNACCEPTABLE EFFECTIVENESS RATES

	Occupation	Input	Percent Completions	Percent Placements
1.	TV Service and Repair	20	45%	10%
2.	Auto Mechanic	20	60%	15%
3.	Machinist	20	52%	14%

It is the continuation of programs that for several reasons do not result in high completion or high placement rates which downgrades the effectiveness of the overall program.

The suggestions for component improvement which have been made in this chapter can produce improvements in the total program with the following ranges:

Component	Change	Percent Improvement
Forecasting	Predictive Analysis	20
Planning	Occupational Category	10
Trainee Selection	Aptitude Qualification	10
Job Development	Major Demand Groups	10
Placement	Employer Qualification	5
	(Less lapse rate attributable to program composition)	10
	Net Improvement	55
	Current	35
	Total	90
	Objective	85

These improvement percentages include report information about the program, obtainable through improved program control and reporting procedure, incident to the proposed standards.

In order to achieve placement rates at this level the Employment Service components of the institutional training programs should be reoriented to include the following features:

Forecasting Component – The forecasting of labor market requirements, on which the need for federally financed institutional training programs can be based, should have two objectives: First, the jobs should be available at the time of completion of the training. Second, the jobs should meet the needs of both the employer and the potentially productive disadvantaged person. These two requirements suggest that a quantitative and qualitative function needs to be performed by the Employment Service for manpower training.

This development of forecasting methods and the establishment of planning procedures should be initiated under a Department of Labor program. Technical assistance teams should be provided to the local Employment Service offices for initial installation of the methods and for training of the local Employment Service research and analysis personnel.

Planning Component – Responsibility for planning manpower training projects except curricula should be assigned to the local Employment Service. The CAMPS committee, if retained, should be established as an advisory group to the director of the local Employment Service and its functions combined with the functions of an occupational advisory committee. The responsibility for meeting the national standards of an 85 percent placement rate for MDTA projects, as proposed, clearly belongs to the Employment Service and should be subject to annual audit by national or regional audit teams. This audit should be performed as part of the annual program review and constitute the pre-approval analysis on which federal / regional program approval is based.

Concurrent with assignment of program responsibility to the local Employment Service, the budget and planning structure should be revised. Fund and slot approvals should be in terms of occupational categories. Those categories in which the 700 occupations contained in the Department of Labor, Bureau of Labor Statistics, **Occupational Outlook Handbook** could serve as the categories for program approval. Selection of occupations and reporting of program activity should be by occupation or derivatives thereof.

Training Selection Component – Responsibility for selection of trainee to MDTA institutional training programs should continue to be solely that of the Employment

Service. The selection process should be based on a policy which could be stated as follows:

"The training of disadvantaged persons will be continued as a priority national program. It can be predicted that the resources available for such training will at any time be less than is needed for the training of all disadvantaged persons. The MDTA prográm will therefore emphasize the selection and training of those persons who, within categories to be specified, best qualify by demonstrated potential for successful completion of training and assignment into the labor market categories for which there is a certified requirement."

The MDTA program could concurrently support training for disadvantaged who are not qualified for certified labor market requirements, but these programs should be clearly programmed as distinct from training for certified labor market requirements. It is suggested that the need for this kind of training be assumed only when it is demonstrated through experience and when non-federal systems are unable to provide employment or training for individuals not qualified for institution training.

This new selection policy and the fundamental need for improving the selection process will require a review of a trainee's aptitude, character analysis, and need for training. It is considered that the subjection of any applicant for training or employment to an analysis of his qualifications and potential for success is appropriate. The vocational education community is probably best qualified to develop methods for testing relating to vocational training. Test facilities, which might well include short-term entry into skill orientation programs, could logically be a part of the institutional training system.

Training Component – There is a need and opportunity for improving the evaluative process as it relates to the trainee and the institution. Evaluation should be tailored to the job or job market for which the trainee is targeted. The extension of phased institutional training should be increased. This suggests a need for closer coordination or program control over federally supported programs which are OJT oriented.

The provision of complete supportive services to disadvantaged trainees should be a part of the training-employment cycle. For maintaining an effectiveness rate of 85 percent, supportive services which are as complete as possible and are a full or part-time element of the training institution should be developed. The provision of services should be continued into the first few months of the trainee's employment where needed by the individual or until the employer assumes the responsibility.

Linkages between the trainee and the institution should be maintained through benefits, supportive services, technical assistance, literature, or minor upgrading training.

As a minimum, contact should be maintained with the trainee through followup progress reporting. An institutional newsletter would be a low-scale method for maintaining follow-up contacts and identification with the trainee.

Provision should be made for the issue of tools or other work-essential aids as a free issue upon completion of the training and entry into employment. All trainees should be permitted to retain the principal textbooks and manuals which they used during training, provided they successfully complete training. Funds for this purpose should be programmed as a part of the base funding or occupational category training program.

Job Development Component – There is an urgent need for developing new concepts in the job development function, both as a part of the forecasting component and in relation to the characteristic of the trainee. Evaluation of Employment Services indicates that greater consideration can be given to the identification of groups of job positions evolving from technical changes, industrial modernization and expansion. The Employment Service job developer should be more technically qualified than he appears to be at the present time; in some cities the MDTA coordinator for the training institution was performing job development functions.

The system of identifying jobs can be improved by emphasizing the development of trained manpower for larger organizations. For example, hospitals represent a large user of professional, semi-professional and technical personnel. By contrast, individual service stations represent a job market for very small numbers. The Employment Service resources can be more productively utilized if they will concentrate on group requirements within the larger organization. This approach suggests a need for better qualified job developers of stature in the community. If necessary, this task could be reinforced by consultant or technical services contracts.

The Department of Labor should consider technical service contracts for consultants similar to those now used by other federal agencies.

Placement Component – The proclivity of the Federal government to establish separate programs for various population groups has resulted in extensive duplication of efforts to place disadvantaged persons in employment.
being contacted by many representatives of such programs. These pressures are further magnified by the several business and other groups who are assisting in job development programs for the disadvantaged. This suggests the need for leadership by the local Employment Services for job development and program coordination and institution coordination with the Employment Service.

It should be noted that this evaluation was undertaken in a year characterized by a downturn in the economy of the country. Rates of unemployment were rising in every city under survey.

The analysis, conclusions, and recommendations contained in this discussion are valid independent of general rates of unemployment, and should be compensated for in forecasting and job development.

The Manpower Development and Training Act, together with the Area Redevelopment Act, was enacted in a time of economic recession in order to help solve the labor market problems of a depressed economy. The challenge to MDTA is, and always has been, to operate a training program based on an efficient forecasting and planning system.

RECOMMENDATIONS

It is recommended that a national standard be established for the guidance and execution of Manpower Development and Training Act institutional training programs. This standard should require achievement of an 85 percent placement rate for all trainees entering the program and a 90 percent rate for all trainees completing the training. This standard should become effective by 1974. Interim progression standards of 65 percent for 1972 and 75 percent for 1973 should be established.

It is further recommended that the suggestions included within the findings and conclusions be considered as the means for achieving the recommended standard.

CHAPTER 3

QUALITY OF THE TRAINING

Quality of the training is that characteristic of the MDTA institutional training activity which assures that a trainee who satisfactorily completes the prescribed course of study is capable of competently performing the tasks of an entry level job.

An evaluation of the quality of training provided by the fifteen MDTA institutions surveyed in terms of occupational skills training, basic education, counseling, orientation or prevocational instruction indicates in general, that the quality of training observed is high. Employers agreed that the MDTA trainees they had hired were well trained and possessed appropriate work habits. Trainees perceived the training as meeting their individual needs and saw themselves as making progress. Equipment and other instructional materials were appropriate and up to date. Instructors had previous teaching experience and were occupationally or academically trained for the positions they held. The teaching methods were innovative and effective. Supportive components such as basic education, counseling, orientation, and prevocational instruction were responsive to the needs of trainees and augmented their training for employment.

INFORMATION ANALYSIS

The components evaluated were occupational skills training, employment orientation or prevocational training, basic education and counseling. A trainee is referred by the Employment Service to an occupational skill on the basis of trainee interest, number of vacant slots, and sometimes ability where tests are administered. If interest or ability cannot be determined, the trainee may attend prevocational training which may include work sampling, testing, basic education, and communication skills. Employment orientation, including filling out applications, techniques of job seeking, developing work habits, may also be included as a component of MDTA training.

Basic education is available to trainees with math, reading and English deficiencies that would prevent their successful completion of occupational skills training. It is also available to those preparing to pass the GED or an employment examination. Occupational skills training is usually available in clusters such as automotive, drafting, welding, health, machine operations, and clerical. While training occurs for other

occupations, these remain the most common. The cluster concept is becoming more widely used and is emerging within occupations for which there are positions having various skill levels. Open-entry and open-exit enrollment in occupational skills training is another trend which is developing. Counselors assist the trainee throughout his participation in MDTA. They refer trainees to community agencies for supportive services and provide individual counseling when needed.

A number of factors are present in the MDTA institutional program which may be looked upon as indicators of quality training. They are:

trainee performance on the job

trainee perception of training program as meeting his needs

administrative policy

content and organization of training components: occupational skills training, basic education, orientation and prevocational training and counseling.

TRAINEE PERFORMANCE ON THE JOB

Employers found MDT trainees to be qualified for the positions for which they were hired. In each of the fifteen cities surveyed, a sample of employers who had hired trainees from the occupational skills training projects under evaluation were interviewed. A total of 97 employers responded to questions asked by Mentec representatives. This task was accomplished with the aid of the local MDT representatives of the Employment Service who helped identify and select the employers who were subsequently visited. Mentec's representative was usually accompanied by an Employment Service representative.

Employers were asked to evaluate trainee performance on the job. The responses were categorized as follows:

80 per cent were favorably impressed. Employers stated that the MDTA trainees hired were well trained for the occupations they were entering and showed appropriate work habits and attitudes.

14 per cent were unfavorably impressed and stated that MDTA trainees could not do the work and had a high turnover rate. Also expressed were the employers' personal feelings about programs which aided the disadvantaged.

6 per cent were not able to judge trainee fitness for the jobs in their organizations, either because they had not hired MDTA trainees or were not aware that such individuals were in their employ.

The typical positive comments above represent a blend of employer points of view emphasizing job competence, attitude, and behavior. Taken as a whole, the comments indicate that the MDTA institutions are preparing enrollees to be well qualified in the three job characteristics noted above. From the point of view of quality of training, MDTA is preparing trainees to meet the expectations of employers.

TRAINEE PERCEPTION OF TRAINING PROGRAM AS MEETING HIS NEEDS

A total of 172 trainees were interviewed in an effort to measure the quality of training from the point of view of the trainee. Trainees were asked, "Are you making any progress in this class?" Ninety-three per cent not only saw themselves as making progress but were able to describe some of the changes they were experiencing, e.g. "I can do things now I could never do before, like read the newspaper and budget my money," "I have more self-confidence and feel good about myself," "I'm learning what I need to get a job."

The significance of trainee perceptions of their own progress is that it indicates the extent to which MDTA staff are able to motivate trainees with a successful training experience.

To further illustrate the attitudes of trainees toward their training program, they were asked, "What are you getting out of the program?" Ninety-eight per cent responded that they were achieving positive results, were able to discuss their training goals and how their learning would lead to goal achievement.

Trainees were also asked: "In what ways does the program help you outside of class?" Eighty-one per cent of those interviewed gave positive illustrations of the beneficial effects of the training upon their personal activities in their homes and neighborhoods, e.g. "I can help my kids with their homework now," "I get along with people a lot better now," and "I'm able to fix things like my TV myself instead of paying someone else to do it."

ADMINISTRATIVE POLICY

The administrative policies within the training institution have direct bearing on the quality of the program. The existence of in-service training, staff meetings, Skills Center designation, professional certification, and curriculum coordinator effect the quality of training provided.

In Service Training – Little more than half of the instructors, counselors and administrators interviewed had participated in in-service training programs other than staff meetings. While staff meetings provide an opportunity for exchanging ideas and developing new approaches to teaching and counseling, they are insufficient as a sole source of in-service training.

Continuous, on-going training of staff is a means of improving the quality of their performance. All 15 institutions surveyed reported having in-service training for staff members. Administrators, counselors, and instructors were asked to describe the kinds of in-service training available. Their responses reflect a variety of approaches:

college credit courses organized exclusively for MDTA personnel by a local college

series of non-credit training sessions organized by the local MDTA institution using community experts as resource personnel

attendance at AMIDS sessions organized either locally or region-wide

training sessions for orienting new personnel

state-wide workshops organized by MDTA state-level personnel

staff meetings in which instructional and counseling methods are discussed as trainee progress reports are reviewed

Staff members were asked to what extent they had participated in one or more forms of in-service training. Participation is not considered high in view of its recognized value.

Of the staff members interviewed, 64 percent had attended at least one AMIDS conference, 56 percent had participated in one or more formal training sessions conducted by local or state MDTA personnel, and 96 percent indicated that they attended weekly staff meetings which they considered to be training oriented.

It is recommended that more active in-service training programs be developed which utilize outside sources of expertise in order to increase the flow of new ideas and opportunity for problem solving.

Staff Meetings – The presence of regularly held staff meetings suggest that MDTA institutions are providing opportunities for the development and maintenance of quality training.

The quality of training is enhanced for the trainee when the institution as a whole is responsive to his changing needs. This means that the training components, e.g., occupational skills training, basic education, orientation, prevocational and counseling remain flexible and can be coordinated.

Frequent staff meetings which are regularly scheduled provide the means by which instructors and counselors can coordinate their activities and make changes whenever they are needed. All staff members in contact with a particular trainee should be aware of his total progress.

Staff meetings were held either weekly or monthly in three-fourths of the training institutions surveyed. Local training administrators looked upon these meetings as a means of transmitting operational information, resolving trainee problems, obtaining suggestions for administrative improvement, and discussing training curriculum.

Skills Centers – The study included five Skills Centers in various stages of development. One center had been in operation as a Skills Center for over a year, another had been newly designated.

Analysis of the data reveals that Skills Centers and non-Skills Center operations are similar in many respects. A variety of occupational offerings, open-entry / open-exit enrollment, and training for occupational clusters characterize both types of training institution. These similarities may be due to the fact that MDTA officials in labor market areas without Skills Centers are making an effort to organize MDTA training to meet Skills Center guidelines and to have an officially designated Skills Center in their area.

Skills Centers have definite administrative advantages in that they have access to base funding and budgeting on an annualized basis for operation of the training

projects, thereby increasing the continuity of program for at least a 12-month period.

Lack of continuity and a certain permanence are concerns voiced by administrators and instructors alike. Instructors particularly, in non-Skills Center operations, are concerned with their own job tenure, where they may be hired for a project for 26 weeks only. While the project may be recycled, instructors are out of work for weeks or months during the re-cycling process. On the other hand, administrators run the risk of losing instructors to other jobs during this time. Under Skills Center operations, however, job tenure for instructors is more stable.

One non-Skills Center operation has overcome this problem in a unique way. The training project is operated by the Board of Education in a vocational high school facility. The MDTA project has an agreement with the Board of Education that the Board will give first preference to instructors from the project who may be unemployed at the end of a training cycle. While this agreement does not constitute a guarantee – there must be a job open with the Board of Education – it still provides a measure of job stability for instructors.

As a result of these administrative advantages, Skills Centers are characterized by more aggressive management and by a coherent institutional environment not found in other training institutions. Consequently, Skills Centers have more "visibility" as training centers and present themselves more as identifiable community resources than non-Skills Center operations which may, for example, operate from several store fronts.

Analysis shows that in terms of quality of training, Skills Centers have an advantage over non-Skills Center programs. This fact also is attributable to the administrative policies of Skills Centers which permit more innovation within the instructional program. For example, learning centers, which are found to enhance the quality of Basic Education components, are found in Skills Centers. Nothing like this innovation was found in the non-Skills Center operations included in the survey.

It should be stated that the differences in the quality of the training between Skills Centers and non-Skills Center operations relate to intangible factors, which, though elusive, can probably be attributed to the increased administrative, and by extension, instructional freedom of the Skills Center operation. This conclusion is supported by the fact that the MDTA institutional programs of this survey which stand out in terms of quality of training are Skills Center operations.

Professional Certification – MDTA institutions are approaching the goal of attaining certification of all members of the professional staffs. Certification of instructors and other professional members of educational institutions is a practice

which is followed widely throughout the educational world in order to establish bench marks of capability and standards of eligibility for employment. It is generally assumed that an educational institution is more certain of providing quality of instruction when its personnel have met the criteria established by the appropriate credentialing agencies. The data given below were obtained from a review of personnel records and interviews with administrators and representative staff members.

Mentec's study of this element of quality training revealed the following facts:

83 percent of **occupational skills instructors** were certificated by the appropriate State Board of Vocational Education as vocational instructors or received special certificates as MDTA instructors. Certification of occupational skills instructors is based upon a minimum number of years trade experience and the completion of certain teacher training courses.

89 percent of basic education instructors were credentialed after having met all of the requirements established by the appropriate State Board of Education.

100 percent of **orientation / pre-vocational instructors** were certificated either as counselors or teachers of fundamental basic education subjects.

59 percent of the **counseling staffs** in the 12 labor market areas were certified in one of these areas: counseling and guidance, secondary school subjects, vocational-industrial education. The 41% who were not certified were employed in institutions which did not require this achievement as a standard of employment.

Curriculum Coordinator – A curriculum coordinator appeared in only one of the institutions surveyed and is viewed in this evaluation as a contributor to the overall quality and effectiveness of the training. The role of the curriculum coordinator is to work with instructors in developing course content. This involves acquiring and developing instructional material which can be coordinated between occupational skills training and basic education. Instructors are continually informed of changes in occupational skill requirements and up-dated instructional materials made available. Basic education instructors are aided in adapting reading, math, and English usage skills to the learning requirements of each occupational skills training project.

Quality training is the result of this administrative arrangement. Occupational skills instructors are experienced tradesmen; however, most lack training in teaching

and curriculum development. Likewise, basic education instructors know the subject matter to be taught but are unfamiliar with the occupations in which training is being offered and how to coordinate the two in terms of the learning ability and level of the trainee. Furthermore, most instructors are unaware of the instructional resources available nor do they have time to search for them or develop their own. For these reasons, the position of curriculum coordinator can add to the overall quality of the training program.

CONTENT AND ORGANIZATION OF OCCUPATIONAL SKILLS TRAINING

The occupational skills training projects which were reviewed and evaluated in the 15 cities of the 12 labor market areas included 18 different occupational areas. These are shown in Table 19. A fairly close degree of commonality in the occupational skills offering in the 15 cities is the rather clear conclusion one gets from observing this analysis. Thus, the offerings by city are:

Training Component	Number of Cities Offering Training
Automotive cluster	13
Welding occupations cluster	13
Clerical cluster	12
Health Occupations	6
Machine tool operation occupations	6
Electronics and electrical occupations	6
Food service occupations	4
Drafting	3

The list of training components shown above contains occupations in which demand for trained workers is quite steady year in and year out. This is particularly true of the top three groups. To illustrate, the need for workers in the automotive occupations field is constantly growing. The clerical occupations which employ mainly women present problems of filling vacancies because of labor turnover.

The need for white collar workers is growing because changes in the economic system, and the increased demands by government for a great variety of records, and the introduction of newer methods of communication require greater numbers of workers in this highly diverse occupational field. Welding is a skill which is useful in many different industries: manufacturing, processing, and transporting. It, too, is an occupational area in which job vacancies appear to be ever-recurring.

TABLE 19

TRAINING PROJECTS INCLUDED IN THE SURVEY, BY CITY

TRAINING PROJECTS	CITY														
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Air Conditioning			x												
Automotive	x	x	x	x	x	x	x	x		x	x		x	x	x
Basic Education	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Building Maintenance								x							
Cashier-Checker											x				
Clerical		x	x	x	x	x	x	x	x	x			x	x	x
Community Service Occupations						x									
Drafting	x							x		x					
Electronics	x	x				x				x				x	
Electrical Appliance Repair											x				
Farm & Light Industrial Equip.															x
Food Service		x		x			x					x			
Health Occupations				x	x	x	x		x		x				
Loom Fixer													x		
Machine Operation	x	x			x				x			x	x		
Pre-vocational/ Orientation	x	x	x	x		x	x	x	x	x	x	x	x		
Printing							x		x						
Sales & Stock			x												
Tabulating & Computer Programming							x								
Welding	x	x	x	x	x		x	x	x	x	x	x	x		x

Recent occupational developments in health occupations demonstrate the opportunity for MDTA to provide training in emerging occupations for which there is a steadily increasing demand for trained workers. Training in health occupations is

offered in six of the twelve labor market areas. In one labor market area a health careers center offers training for Certified Laboratory Technician and Laboratory Liaison Technician occupations. Surgical technicians are being trained in another area. In other labor market areas, however, training for health occupations is limited to training in Nurse Aide / Orderly and Licensed Practical (Vocational) Nurse occupations.

There is evidence that MDTA programs have offered training in the past in emerging health occupations. In one city, for example, two projects offering training in medical laboratory assistant and obstetrical technician had been phased out, the first for lack of funds and the second for lack of employment opportunities. A third project had been initiated for the occupation of inhalation therapist. This project was cancelled because the curriculum providing for 18 months of training as required by state medical boards could not be approved for MDTA.

Projects offering technical training in health occupations have a higher per-trainee cost than projects in other occupations, primarily because of the high cost of laboratory equipment. When funds are limited, it can be expected that projects with higher per-trainee costs will be cancelled in favor of more economical projects. MDTA can, through cooperative arrangements with hospitals, find ways to reduce these costs by buying time for use of expensive equipment, by providing trainees to perform routine duties for under-staffed hospital departments as part of on-the-job training.

In spite of the high cost of training for health occupations, health occupations have the highest completion rates among the occupational areas included in this survey. Training for these occupations is further characterized by a career approach to training and employment so that placement rates and rates of retention on the job are high, thereby providing a high rate of return for MDTA training investments.

The fact that jobs were not available for trainees in obstetrical training reflects first upon the planning process for MDTA, and second upon the job development function.

The licensing requirements for certain health occupations may make them unsuitable for MDTA institutional training, as in the case of the occupation of inhalation therapist. It is true, however, that break-throughs are being made in the reorganization of training for occupations traditionally requiring an extensive training period. It seems appropriate that MDTA use its resources to continue to find new ways of organizing training for these occupations through a cooperative effort with licensing agencies.

Range of Organizations Employing MDTA Institutional Trainees – Every industry group has given jobs to people who have been exposed to training in an MDTA institution. The disadvantaged who are trained in the institutions authorized under the Manpower Development and Training Act are being accepted in every facet of American business, industry, and government. A list illustrating the wide range of business and industrial organizations in which MDTA trainees are employed is at Appendix E.

Table 20, shows the spread of acceptance of MDTA institutional trainees throughout the economic structure of this country. The table represents the 97 employers who were interviewed for the survey, by industry category, and shows the numbers of trainees represented by these employers within each industry category.

TABLE 20

CATEGORIZATION, BY INDUSTRY, OF EMPLOYERS INTERVIEWED

Industry	Number of Employers	Percent	Number of Trainees Represented
Mining	2	2%	30
Contract Construction	0	0	0
Manufacturing	31	32%	700
Transportation and Public Utilities	3	3%	30
Wholesale and Retail Trade	23	24%	60
Finance, Insurance and Real Estate	8	8%	50
Services	24	25%	1100
Government	6	6%	20
TOTAL	97	100%	1990*

*This figure represents the approximate number of trainees employed by the 97 employers included in the survey.

Table 21 shows that employment of MDTA trainees was not confined to any one group of employers classified by numbers of persons employed. It appears, then, that persons who have been enrolled in this manpower program have been found acceptable to employing organizations regardless of the size of their work force.

TABLE 21

RANGE OF SIZES OF WORK FORCE FOR EMPLOYERS INTERVIEWED (N = 97)

SIZE OF WORK FORCE									
50 Employees and under		51-200 Employees		201-500 Employees		501-1500 Employees		1501 and over Employees	
No. of Employers	%	No. of Employers	%	No. of Employers	%	No. of Employers	%	No. of Employers	%
28	29	22	23	19	20	14	14	14	14

Trainee Performance on the Job – Employers' establishments were visited and representatives were interviewed for the explicit purpose of determining: (a) whether and to what extent the content of the training related to the content of a job in the organization's realistic world of work, and (b) the degree of capability of the trainee to adjust to the work standards of an employer and to perform the tasks of the job competently. While both of these approaches were designed to measure relevance as well as quality, it appears that the responses of the employers apply equally in each case.

The employer reactions may be classified as follows:

80 percent were favorably impressed

14 percent were unfavorably impressed

6 percent appeared to be unable to judge trainee fitness for the jobs in their organizations

The responses may be further categorized in three broad areas; **attitudes, competence,** and **productivity.**

With regard to attitudes, the majority of employers indicated that the trainees were eager to work, were dependable, conscientious, and appreciative of the work opportunity, and cooperated well with peers and superiors. Those who commented negatively said nothing about trainee attitudes, but did point out that the turnover rates among MDTA trainees whom they had employed were higher than those of technical school graduates.

With respect to competence, 80 percent of the employers interviewed stated that the trainees were able to perform the job tasks quite well at the beginning of their employment and were able to reach the required standards of performance in a relatively short period of time. The negative responses among the employers maintained that the trainees were not able to perform up to standard at the beginning of employment, were slow in becoming adjusted to job requirements, and could not compete with experienced workers.

With regard to productivity, employers responding positively pointed out that MDTA trainees were able to reach quantitative production standards within six months or less. This point of view appeared to them to be indicative of high quality training. Employers responding negatively were not clear about this point except to state that trainees whom they had hired could not compete with experienced workers. No objective evidence was presented to support this point of view.

It appears to be a valid conclusion that most employers who had given jobs to MDTA institutional trainees were satisfied with the quality of the training received by the trainees.

Employers who had hired trainees from both Skills Centers and MDTA institutions, perceived no difference in their job performance. It is apparent, therefore, that from the standpoint of this variable alone the quality of the training is equally good in both of these units of the total MDTA program.

Environmental conditions and **equipment** significantly affect the quality of instruction or training in almost every learning situation. This observation is especially applicable to the projects established to prepare the disadvantaged for employment since the goal is that of becoming able to hold a job after a relatively short period of training. The more closely the environmental conditions and the tools, machines, and materials used in training resemble what the trainee will find when he goes to work, the better the instruction meets employers needs.

The physical facilities seen in the 15 cities ranged rather widely from those which were located in temporary quarters and rented buildings to those which were found in

modern, relatively new vocational technical institutes and community colleges. This description applies equally to the Skills Centers and the MDTA institutions which were not officially designated as Skills Centers.

The evaluation of physical facilities and equipment was conducted by Mentec's team in two separate phases: (a) observation of classroom and shop conditions, operations, and facilities; (b) discussions with instructors about these factors. The observations were made in accordance with Mentec's Guideline Criteria, Adequacy of Physical Facilities, in Appendix F.

Five features were included in the evaluation of occupational skills training physical facilities: space, lighting, heat and power, ventilation, sound level. A two-level scale was used. Thus, these items could be labeled adequate or inadequate depending upon how well they met the conditions outlined in the Guideline Criteria. One hundred forty-three basic education and orientation / pre-vocational classrooms as well as occupational skills training laboratories, shops, and similar simulated work areas were included in this evaluation.

Considering physical facilities only it was found that they were adequate as the following tabulations shows:

TABLE 22

ASSESSMENT OF PHYSICAL FACILITIES

Facility	Adequate	Inadequate
Space	79%	21%
Lighting	87%	13%
Heat and Power	83%	17%
Ventilation	80%	20%
Sound level (acoustics)	72%	28%

Four items were considered in the evaluation of the equipment which was used in MDTA occupational skills training projects in the twelve labor market areas:

(a) the extent to which the equipment was up-to-date rather than obsolete

(b) the degree to which the equipment was varied enough to give each trainee the opportunity to become acquainted with the different kinds of tools, machines, and equipment used in the occupation

(c) the availability of a sufficient quantity of each piece of equipment so that each trainee would be given the opportunity to learn how to manipulate or operate it

(d) the degree to which the equipment simulated the kinds which the trainee would find in a realistic work situation

The following tabulation, represents the judgment of Mentec's evaluation specialists and the instructors in the institutions. The equipment in the MDTA institutional program, Skills Centers and others, is in accord with the evaluation standards.

TABLE 23

EVALUATION OF EQUIPMENT
PERCENTAGE DISTRIBUTION OF RESPONSES (N = 101)

Factors	Responses	
	Positive	Negative
Up-to-date	85%	15%
Sufficient Variety	75%	25%
Sufficient Quantity	81%	19%
Degree of simulation of realistic work situations	89%	11%

It was found that in most respects the physical facilities and the equipment observed by Mentec's evaluation team were in accord with criteria set up to measure the degree of their contribution to the quality of the training.

Staff Characteristics – Relationship to Quality of Training. Academic background and professional preparation to instruct are not usually given prime consideration in the hiring of occupational skill instructors. More stress is placed on the kinds of occupational skills experience and the number of years of work experience the prospective instructor had had in the occupational field in which he will teach. Nevertheless, Table 24 shows that 18 percent of 101 such instructors observed and interviewed had earned the Bachelor's degree and beyond. Less than one percent had not completed the high school diploma program.

TABLE 24
ACADEMIC BACKGROUND OF OCCUPATIONAL SKILLS TRAINING INSTRUCTORS (N=101)

Academic Background	Instructors	
	Number	Percent
Less than high school	1	1
High school graduate	55	54
Some college, no degree	24	24
Associate of Arts degree	3	3
Bachelor's degree	15	15
Master's degree	3	3

Occupational skills instructors presented two types of work experiences gained before they became employed in MDTA institutional training: experience in the occupational skills which were being taught and experience in teaching. Two tabulations following, illustrate.

TABLE 25
YEARS OF OCCUPATIONAL EXPERIENCE PRIOR TO MDTA EMPLOYMENT OF OCCUPATIONAL SKILLS TRAINING INSTRUCTORS (N=101)

Years of Occupational Experience	Instructors	
	Number	Percent
Less than one year	1	7
1 - 5	15	15
6 - 10	22	22
11 - 15	13	13
16 - 20	16	16
21 - 25	13	13
26 and over	21	20

TABLE 26

YEARS OF TEACHING EXPERIENCE PRIOR TO MDTA EMPLOYMENT OF OCCUPATIONAL SKILLS TRAINING INSTRUCTORS (N = 100)

Years of Teaching Experience	Instructors	
	Number	Percent
None	43	43
1 - 5	34	34
6 - 10	14	14
11 and over	9	9

The most frequently reported types of teaching experienced by occupational skills instructors prior to MDTA employment were in the areas listed below:

experience in industrial training
vocational day school
night school
military organization
secondary school
private trade school

Years of teaching experience in an MDTA institution may also be a factor contributing to the raising of the quality of instruction. Accordingly, Mentec's evaluation team reviewed the employment records of the MDTA institutions visited and found that relatively large percentages of occupational skills instructors had been employed in MDTA institutional teaching between one and six years. The detailed data follow:

TABLE 27

YEARS OF TEACHING EXPERIENCE IN MDTA OF OCCUPATIONAL SKILLS TRAINING INSTRUCTORS

Number of Years Teaching Experience	*Percentage of Occupational Instructors
Less than one year	18
One to two years	34
Three to four years	26
Five to six years	14
Seven to eight	7
Nine to ten years	1

*Total percent does not equal one-hundred due to rounding

The figures cited above lend emphasis to the assumption that the training provided in MDTA institutions (Skills Centers and others) is of the kind which fits the enrollees to work competently, productively, and cooperatively when they become employed in the jobs for which they were prepared. Certainly, everything else being equal, years of experience in the teaching of the disadvantaged ought to be assurance of the high quality of the training.

The Occupational Advisory Committee – There is one valuable means of assistance in maintaining relevance and quality of the preparation for employment which is not very much in evidence in MDTA institutional operations. The occupational advisory committee has been used for many years as an effective tool by educational and training organizations, especially in vocational and technical education. These committees, which are composed of representative employers and employees in an occupation, have been extremely helpful in advising educators of trends in labor market needs and in providing information about technological changes in the occupations they represent. Members of the occupational advisory committees have helped to find suitable candidates to fill openings in the ranks of occupational and related subjects instructors, as well as among coordinators, supervisors and administrators.

Table 28 indicates that only 30 percent of the 101 occupational skill instructors indicated that formal occupational advisory committees exist for their training projects. In five of the 15 cities visited there were no functioning committees in operation, and in each of three of the 15 cities under study only one such organization was used. However, some of the instructors pointed out that they maintained informal ties with former employers and associates and were thus enabled to keep up with developments. This relationship is informal and the contacts may be made at irregular intervals.

The tendency of instructors to not organize occupational advisory committees or, if they are organized, to not utilize them on a formal basis is attributable to their own knowledge and sensitivity to occupation requirements and to their lack of time to manage a formal advisory program. It is noted that most instructors are required to instruct or be responsible for their classes a full eight hours per day. It is considered that efforts should be made to increase the staffing in order that more time will be available to the instructor for such activity as coordination with the occupation industry, attendance at trade fairs and locally conducted instruction programs by manufacturers representatives. Many instructors also do not have adequate time to

prepare lesson plans, training aids and course material for future instruction. One method by which assistance can be provided to instructors is by authorizing instructor aides from the ranks of former students. For example, the retention of one or two outstanding students for one year following their completion of training would provide assistance to the instructor, increase staff-student communication and provide incentive to the students who might aspire to instructor status.

TABLE 28

EXISTENCE OF FUNCTIONING OCCUPATIONAL ADVISORY COMMITTEES (N=101)

(Responses to the inquiry "Do you have a functioning occupational advisory committee?" asked of a sample of instructors of occupational skills training projects)

CITY CODE	NUMBER OF RESPONSES	RESPONSE			
		YES	%	NO	%
01	6	3	50	3	50
02	13	1	8	12	92
03	6	5	83	1	17
04	6	3	50	3	50
05	7	0	0	7	100
06	7	4	57	3	43
07	9	2	22	7	78
08	6	0	0	6	100
09	8	3	38	55	62
10	7	7	100	0	0
11	6	0	0	6	100
12	3	1	33	2	67
13	7	0	0	7	100
14	6	0	0	6	100
15	4	1	25	3	75
TOTAL	101	30	30	71	70

While the occupational advisory committee represents the most formal mechanism for bringing instructors and MDTA administrators together with employers, it is suggested that other ways for linking employers and MDTA personnel may be more compatible with the operations of a training institution. It is emphasized that MDTA should, however, provide the means for instructors and administrators to meet with employers regularly, whether formally or informally, to exchange information about training and employment.

Occupational Coordinator – Lacking in the structure of MDTA institutional training was the position of coordinator, who could maintain constant contact with the economic forces in the company in order to: (1) remind potential employers of the fact that people are being trained to fill the job vacancies in their organizations, and (2) bring back to the institution administrator and the instructional staff information about the latest developments which might be incorporated into their instructional practices. It is true that the job developers of the Employment Service are charged with the responsibility of maintaining contact with prospective employers for the purpose of finding jobs for trainees, but these individuals are generally too few in number, have many other concurrent duties to perform, and are not well enough acquainted with the institutional offering and instructional practices to perform an acceptable job of coordination in the real sense of the term. The Houston, Texas Skills Center is maintaining contact with the employers in its labor market area (described in Chapter IV, Practices and Projects Worthy of Replication).

CONTENT AND ORGANIZATION OF BASIC EDUCATION

In evaluating the quality and relevance of basic education, one must think not only in terms of how basic education will increase the trainee's employability, but also to what extent the developing of such skills as reading and mathematics will enable him to function more effectively in everyday living situations.

Based on this premise, data have been obtained by interviewing instructors and observing their classes in order to evaluate the quality of basic education. Twenty-seven instructors were interviewed and observed in the fifteen cities visited.

Organization – The organization and kind of training available to trainees varied widely among the institutions evaluated. Fourteen out of the fifteen institutions surveyed provided trainees with basic education instruction. Of these, 50 percent enrolled trainees in basic education on a full-time basis (6 to 8 hours per day) prior to entering occupational skills training; the other half scheduled basic education instruction concurrently with occupational skills training (1 hour, to 1 hour and 40 minutes per day). The length of time spent in basic education ranged from a few weeks to as long as the trainee was enrolled in occupational skills training and depending upon the needs of the trainee. Enrollment in basic education also varied from requiring all trainees to attend to selecting only those who needed basic education in order to achieve their occupational goals. The latter was the more common practice.

Both types of scheduling and enrollment practices were combined in an innovative approach by the Tucson Skills Center. Trainees with a general deficiency in basic education skills, such as reading, math, and English, attended basic education either full time or concurrently with occupational skills training. Those enrolled full-time in occupational skills training who encountered difficulty with a particular basic skill unit, such as adding fractions, or using commas, attended basic education for an hour or a few days as may be required and then returned to their occupational skills class. This approach enables the trainee to receive immediate instruction at a time when it is directly relevant to his occupational skills training.

The objectives of basic education classes ranged from increasing the reading level of the functionally illiterate to preparation for passing an employment test or GED examination. The highest grade completed by trainees ranged from elementary, to junior college, but scoring below the 8th grade level in basic skill achievement.

Trainee Profile contained in the appendix indicates that only 14 percent of the trainee population fall within the eighth grade and under category, while 48 percent have completed the twelfth grade or above. It is evident that highest grade completed cannot be used in determining the basic education needs of trainees. Rather, his actual achievement level must be the criterion for enrollment in basic education classes.

Table 29 illustrates the discrepancy between highest grade completed and basic skills achievement at intake into one auto body repair project. While the average highest grade completed was 10th grade, the average grade level in reading was 6.6 and in arithmetic 6.3. Basic skill achievement rather than highest grade completed must be the determining factor in considering the basic education needs of trainees.

Thus, trainees are enrolled in basic education for various reasons depending on their individual goals. Most trainees entering basic education are either (1) below the

8th grade level in their basic skills; (2) need basic education in order to benefit from their occupational skills training and supplementary related education courses; or (3) are preparing for an employment test or the GED examination.

TABLE 29

*DISCREPANCY BETWEEN INTAKE READING AND ARITHMETIC SCORES, BY GRADE LEVELS, COMPARED WITH HIGHEST GRADE COMPLETED (N=18)

Highest Grade Completed	Intake Grade Level	
	Reading	Arithmetic
7	5.8	0
8	2.7	5.7
8	7.6	5.7
8	4.4	3.6
9	4.6	4.4
9	9.0	10.8
9	3.5	5.3
9	5.6	7.9
10	11.0	7.9
10	5.3	4.9
10	6.3	5.3
11	3.5	4.4
11	6.6	7.4
12	6.6	6.7
12	7.2	4.9
12	10.7	12.5
12	10.2	6.7
12	8.2	8.5
Mean 9.9	6.6	6.3
Median 10.0	6.5	5.7

*Sample of trainees enrolled in automobile body repair training.

Basic education for trainees having difficulty speaking English as a second language was available wherever the number of trainees requiring ESL training exceeded two percent of the total enrollment. These classes had bilingual instructors and instructional materials designed for this purpose.

Course outlines were used by all basic education instructors, most of which were designed by instructors and administrators specifically for MDTA trainees. In addition to general course outlines, instructors using programmed materials and individualized instruction prepared specific learning objectives for each trainee. Trainee progress was determined by testing the trainee as he completed each objective.

Forty-eight percent of the instructors had coordinated basic education to some degree with the occupational skills training of the trainee. Basic education courses were coordinated either by means of informal discussions with the shop instructors as to what a particular trainee needs to learn, or through the use of basic education reading and mathematics textbooks designed for specific occupations, such as culinary arts, welders, automotive repair, and so on. Informal coordination was found primarily where classes were grouped according to reading and mathematical ability: thus, trainees from various occupational skills were represented within a single basic education class. In contrast, greater coordination existed where basic education classes were comprised of a single occupational skill grouping.

Of those instructors relating basic education to occupational skills training, few had instructional materials which adapted the content of the subject matter of the occupation to the basic education level of the trainee. Most material consisted of worksheets with lists of vocabulary words which the trainee was to learn to read and pronounce. This suggests the need for a curriculum coordinator to develop appropriate instructional materials for both basic education and occupational skills training instructors.

Teaching Methodology – Instructors are meeting the learning needs of trainees through individualized instruction. Perhaps the most significant finding is the method by which instructors teach basic education subjects. Instructors were asked to estimate the percentage of class time spent in individual instruction as compared with group instruction. A summary of Table 30 indicates that 74% spend 50% or more of their time in individualized instruction.

TABLE 30

PERCENTAGE OF TIME BASIC EDUCATION INSTRUCTORS SPEND IN INDIVIDUAL INSTRUCTION

Percentage of Time	Percentage of Instructors	
75 - 100	56	(15)
50 - 74	18	(5)
25 - 49	15	(4)
0 - 24	11	(3)
	Total 100	(N=27)

In view of these data, MDT instructors are providing a learning environment which enhanced the quality of training provided. The effect of individual instruction is substantiated by the response of 172 trainees who were asked, "How are your instructors here (the training institution) different from those you had in regular school?" 91 percent (151) reported a positive difference in favor of MDT instructors. The significant finding, however, is that although the question itself is somewhat broad, the responses were easily categorized in two areas indicative of quality education:

1. **Favorable Socio-Emotional Learning Environment**

   Trainees stated repeatedly that they were recognized and treated as individuals, that the learning atmosphere was friendly and personal and that instructors understood their individual problems. They further noted that they were able to relax and concentrate on learning rather than competing for high grades.

2. **Greater Understanding of the Learning Needs of Trainees**

   Trainees reported not only that they were able to learn what they had failed at previously, but that what they learned was relevant to the individual's particular goals. They emphasized that instructors were available to help them whenever it was needed, and were willing to explain something until it was understood. And according to trainees, making mistakes was seen by

instructors as part of the learning process and they didn't become annoyed or "get mad."

These comments are revealing in terms of what makes for quality and relevant instruction.

According to the instructors, individual instruction consisted primarily of providing each trainee with a workbook selected to meet his particular basic education needs, e.g., reading, mathematics, and English, and the instructor moving from one trainee to another whenever he had difficulty with the lesson. Thus, most classes were structured so that each trainee progresses at his own rate. After completing a particular unit, the trainee was usually tested and if successful moved on to more advanced work.

This method of instruction was facilitated because class size is minimal in most institutions. The number of trainees enrolled in a single basis education class ranged from six to twenty-five with an average of fourteen. There was one exception occuring in a private school where the class size was maintained at forty-five. This figure was not included in the overall average in order to avoid skewing.

Group instruction was used by 26 percent of the instructors 50 percent of the time or more. According to the instructors, it was found most effective whenever the class as a whole was having similar difficulty understanding the subject being taught. These sessions were usually initiated by the trainees and the instructor utilized the discussion as a problem solving exercise.

Only three instructors used group instruction entirely. This method of instruction was utilized because the classes were organized by subject and trainees were grouped homogeneously by occupational skill training course and level of basic education attainment. In this instance, the class moves together from one segment of instruction to another, the assumption being that all trainees within a particular class had a similar ability level and need to learn the same subject. It is interesting, however, that some of these same instructors reported that even where attempts were made to group classes according to trainee achievement, there was still a vast range of emotional and basic education needs represented within a single class.

This is further evidence of the appropriateness of individual instruction in MDT.

Instructional Materials – Instructional materials were in sufficient quantity but lacking in variety, adult in subject matter but unrelated to the background of the trainees. However, the content of the materials dealt with the basic education skills which trainees needed to learn. Of the instructors interviewed, 75 percent relied on

workbooks and handout sheets prepared by the instructor, 44 percent used commercially developed programmed materials and the accompanying teaching machines, and 59 percent had incorporated such instructional aids as films, slides, tape recorders, televisions, record players, and maps or charts. Other innovations such as games, role playing, were found to be an active part of only 29 percent of the classes evaluated. As few as 22 percent of the instructors had class libraries where trainees could check books out for leisure reading. While most instructors use individualized instruction, they appear to vary only the content of the subject matter and not the medium (game, film, worksheet) through which it is presented to the learner. If maximum learning opportunity is to be available to each trainee, then he must be offered a variety of ways in which he can acquire basic education skills.

As for the quantity of teaching materials, 93 percent of the instructors reported having a sufficient number of the textbooks they used most so that each student could have his own copy. In most instances, however, the trainee was not allowed to take books home or to keep them once he completed the program.

Instructors were also asked to assess the extent to which reading materials deal with adult topics and mathematics texts with problems having practical application such as interest rates, discounts, and budgeting. In response to this question, 84 percent stated that the books they were using dealt with adult topics but that the content was sometimes unrelated to the socio-economic background of the trainees, for example math problems with illustrations of how measurements are taken when having clothes made by a tailor. Several reported a need for low level instructional materials dealing with contemporary issues and current social problems. Also lacking were low level materials related to the occupational skills training of the trainee.

Testing is used primarily by the Employment Service and the MDTA training institution to determine the training needs of the trainee. Of the training institutions surveyed, 60 percent received test score data from the Employment Service. However, this would not be for every trainee referred to training, since only 40 percent of the Employment Service representatives interviewed reported that every MDTA candidate was tested.

Eighty percent of the institutions had established their own testing program including those receiving test scores from the Employment Service. Such tests ranged from diagnostic math and reading tests and vocational preference inventories to personality assessment.

For those not providing testing programs, tests were administered by the local

TABLE 31

INTAKE AND EXIT READING ARITHMETIC SCORES, BY GRADE LEVEL, FOR ENROLEES IN BASIC EDUCATION (N=16)[1]

Reading Grade Level[2]			Mathematics Grade Level[3]		
Intake	**Exit[4]**	**Increase**	**Intake**	**Exit[4]**	**Increase**
Non-reader	2.5	2.5	3.8	5.0	1.2
2.0	3.1	1.1	4.0	4.8	.8
2.7	10.3	7.6	3.1	6.9	3.8
3.2	4.7	1.5	2.7	5.6	2.9
4.4	5.7	1.3	6.1	7.5	1.4
4.6	7.2	2.6	6.0	7.5	1.5
4.7	9.1	4.4	4.9	7.3	2.4
5.3	6.7	1.4	4.4	7.1	2.7
6.3	8.7	2.4	5.2	7.3	2.1
7.3	9.6	2.3	4.3	6.2	1.9
8.0	8.0	0.0	5.0	7.3	2.3
8.3	9.7	1.4	6.3	8.0	1.7
9.3	12.0+	2.7+	6.0	8.7	2.7
9.9	11.2	1.3	5.4	6.2	.8
10.3	11.9	1.6	5.4	7.6	2.2
11.4	12.0+	.6+	6.5	8.7	2.2
Mean 6.1	8.3+	2.2+	4.9	6.9	2.0
Median 5.8	8.9	1.6	5.1	7.3	2.2

[1] Random sample of trainees enrolled in basic education as part of prevocational training

[2] As measured by the Nelson Reading Test, Revised Edition, Forms A & B

[3] As measured by the Los Angeles Diagnostic Test, Fundamentals of Arithmetic, Forms I and II

[4] Length of time between intake and exit tests not available.

Employment Service though not always submitted to the training institution.

Only 40 percent of the training institutions had instituted retesting as a regular part of the curricula. The practice appears to be valuable both in assessing the progress of the trainee and in providing an overall measure of effectiveness to counselors and basic education instructors, and administrators. Table 31 lists the intake and exit scores for one basic education class evaluated. The increase in grade levels ranged from 0 to 7.6 for reading, and .8 to 5.9 for arithmetic. The average increase in reading scores for trainees sampled was 2.2+ grade levels and for arithmetic 2.0 grade levels. With these data further comparisons can be made of trainee progress among instructors using different teaching methods and curricula.

Instructors are qualified to teach basic education subjects. Of the twenty-seven instructors interviewed, 78 percent hold Bachelors degrees. The remaining 7 percent (2) have one to two years of college credit. One of these instructors is teaching in an MDTA institution and the other in a private technical institute. Furthermore, 81 percent of the instructors have state teaching certificates which qualifies them for a full-time teaching position in the public school system at either the elementary, secondary or junior college levels. Eleven percent (3) have only a provisional certificate to teach basic education in MDTA and 8 percent (2) have no certification.

Furthermore, the majority of instructors interviewed, reported having taken additional course work which was relevant to either teaching the disadvantaged or in their area of specialization, e.g., remedial reading.

Not only are the instructors qualified academically, but most come to the MDTA institution with prior teaching experience. According to Table 32, 78 percent have had one or more years prior teaching experience with 26 percent having five or more years.

TABLE 32

YEARS TEACHING EXPERIENCE PRIOR TO MDTA OF BASIC EDUCATION INSTRUCTORS

Years Experience	Percentage of Instructors	
0	19	(5)
Less than 1	4	(1)
1–2	33	(9)
3–4	19	(5)
5 or more	26	(7)
Total	101%	(N=27)

CONTENT AND ORGANIZATION OF ORIENTATION AND PREVOCATIONAL TRAINING

Job-related training other than skills training is an integral part of MDTA institutional training. Important to the development of trainees' employability potential, besides training in an occupational skill, is an orientation to the world of work which may include training in communication skills, grooming, techniques of interviewing, and so on. Prevocational training may be available for trainees who are unsure of an occupational choice, who need to improve basic skills needed for enrollment in occupational skills training, or who need an introduction to the routine of attending training classes regularly before enrolling in occupational skills training.

The inclusion of orientation and/or prevocational training enhances the quality of MDTA institutional training. This training strengthens the employability of trainees who participate and in some cases provides an opportunity for trainees to explore their occupational options before making a choice.

There is a lack of evidence with which to determine the effect of orientation and prevocational training on completion and employment. Research in this area is needed.

Employment development training is common to all MDTA institutions surveyed. In six of the labor market areas surveyed, training institutions offer extensive prevocational training, expanding employability orientation to include work sampling and hygiene in some cases.

The programs vary widely in their content, organization and method of presentation. This variety suggests that little has been done within MDTA to identify the best ways of organizing training, the most comprehensive curricula and the most efficient ways of meeting the needs of trainees in preparation for employment. Variety among MDTA training programs is desirable and experimentation is to be encouraged. In the areas of training for employability, however, there is a need for a more studied approach to training.

A description of the variety of programs is presented below:

Intake interview by the counselor – Three institutions, including a skills center, conduct orientation at intake. This form of orientation is given for individual trainees as they are enrolled at the institution or for groups of trainees who are enrolled at the same time. The content may include testing and commonly includes a description of the institution, an explanation of the training project and the trainee's schedule, and an explanation of the regulations governing the

trainee's conduct and attendance. Orientation is conducted by the counseling staff of the institution.

Weekly two-hour sessions for ten weeks – This program extends the orientation program for ten weeks. The content of the program is related to the experiences of trainees in occupational skills training projects which they attend concurrently with orientation, and also includes money management, work habits and so on. The program is conducted by the basic education instructor at the institution. All trainees attend.

Forty hours orientation and employability development – This form of orientation was found in two institutions. Upon enrollment, the trainee spends about three days in a testing program. With individual trainees, or more frequently with groups of trainees, the counselors describe the training project, interpret the trainee's test scores, and discuss the trainee's schedule. In one institution, the remainder of the forty-hour project is spread through the length of the training project when groups of trainees meet for "employability development" – including field trips, visits by employers, learning to fill out applications, handling an interview, discussing grooming, what an employer expects and other "world of work" content.

In the other institution, a Skills Center, trainees complete the 40-hour week in the orientation program before attending occupational skills training. In both cases, all trainees attend and orientation is conducted by the counselors at the institution.

Three weeks, eight hours daily, employment orientation – This component, conducted by a Skills Center, emphasizes training in skills related to a job search – what an employer wants to hear in an interview, how to answer a newspaper advertisement by telephone, and so on. Time is provided during the course for employment counseling and job referral by employment personnel. The employment orientation course is open to MDTA trainees, who generally enroll shortly before they complete occupational skills training, and to clients of the Employment Service not enrolled in MDTA but who need this kind of training. Not all MDTA trainees attend this project. The component is conducted by a full-time orientation instructor.

This unique project is described in further detail in Chapter IV, "Practices

and Projects Worthy of Replication".

Two weeks orientation by Employment Service – 40-hours job orientation at end of skills training. This combination of orientation components appears in one Skills Center. Trainees selected for MDTA training attend daily sessions for two weeks at the offices of the Employment Service. The program provides an orientation to MDTA, the Skills Center, the range of occupational skills training projects available, the local labor market. Trainees are counseled by Employment Service personnel as to their choices of occupation and subsequently enrolled in the appropriate project. Work habits and job-seeking techniques are also included.

At the Skills Center, the last 40 hours of a person's training are spent in job orientation. Employers visit the Center to discuss hiring standards, and various kinds of applications and employment tests are reviewed. Trainees participate in simulated employment interviews which are video taped and played back for evaluation by trainees. Job leads are given to trainees by the Job Bank, which is located next door, and trainees schedule job interviews during this time.

Six hours a day for two weeks – In another institution, this project combines orientation and pre-vocational training. This content includes testing and an elaborate "world of work" curriculum. The orientation is combined with two hours daily of basic education. The objectives of this orientation project are to improve the trainee's level of achievement before he enters occupational skills training and to clarify for the trainee and the institution the extent to which he is suited for his occupational choice. The project employs a full-time orientation instructor.

Eight hours daily for four weeks – In this situation, every trainee is enrolled in orientation, but the length of stay in the orientation class depends on the trainee's need for prevocational training. Testing and a "world of work" curriculum are a part of this project. The project has also the objective of further screening trainees for their occupational choice – the instructor reports that about one percent are referred directly to jobs instead of to skills training. Those trainees who are not sure of their occupational choice, trainees in need of remedial education, and trainees enrolled in clerical skills training may spend the entire four weeks in improving their basic skills and in clarifying their occupational choices. This project is conducted by two full time instructors.

It is recognized that not every trainee will need an orientation to employment or training. The majority of trainees have had substantial experience in the labor force prior to entering training. Appendix B, Trainee Profile, indicates that 84 percent of the MDTA population have had one or more years of gainful employment. Of this number, 54 percent have been employed three or more years with approximately one-fifth having ten or more years employment experience. There is evidence to suggest, however, that employment orientation is useful even to persons who have had extensive work experience. For example, the employability orientation in Portland had developed a more appropriate curriculum including job seeking skills and contacts with employers.

The usefulness of such training is supported by the case of one institution which conducts a three-week employment orientation program. The program is open to MDTA trainees who are near to completing skills training and to clients of the Employment Service. This project provides a very practical curriculum in job-seeking skills and provides employment counseling and job referrals during the course. Of 170 enrolled in 1969-70, 85 percent obtained employment.

Prevocational Training – The main objective of prevocational training is to assist the trainee to clarify his choice of occupation. Secondarily, prevocational training may be used by the institution to determine the extent to which the trainee is suited for his occupational choice. In other words, prevocational training is a means for refining the selection and referral process.

Though some kind of prevocational program is necessary for trainees who are undecided about an occupation, prevocational components cannot by themselves improve the efficiency of MDTA institutional training, a result of current selection and referral procedures which are operating inefficiently. A discussion of the selection and referral processes and recommendations for their improvement are presented in Chapter II of this report, "Relevance to the Labor Market".

Table 33 presents a summary of outcomes of prevocational training in one city.

TABLE 33

SUMMARY OF OUTCOMES OF PRE-VOCATIONAL TRAINING IN CITY 13

Disposition of Trainees	Number	Percent
Enrolled	280	100
Referred to MDTA Skills Training	141	50
Referred from Prevocational Training to Jobs	51	18
Referred to other Social Agencies*	19	7
Referred to ES for Job Placement	12	4
Terminated for Poor Attendance	21	8
Terminated for Other Reason	36	13

* - DVR (12), CEP (3), community workshop (2), OIC (1), Neighborhood Youth Corps (1)

Table 33 shows that 50 percent of the trainees were referred to occupational skills training. Twenty-two percent were referred for employment or placement in employment. Seven percent were referred elsewhere for service. The disposition of these 29 percent shows that these trainees were positively affected by prevocational training. Twenty-one percent of these trainees were either screened out by the program or screened themselves out.

Work sampling – Two institutions incorporate work sampling in pre-vocational training programs. In the first institution, all trainees attend pre-vocational training two days a week for employment-related training and basic education. The rest of the week is spent in occupational skills training projects; trainees uncertain of their occupational goals sample each project until they have made their choice of occupation. Other trainees who already have made their choice attend basic education and employment orientation only.

The second institution provides six to ten weeks of work sampling and employment development training for separate classes of men and women for one and one-half hours daily. Prevocational training is held concurrently with basic education classes in reading and mathematics; trainees attend classes on a daily rotating schedule.

Training for the men focuses on field trips to local industries and practice on machines used in occupational skills training. Training for women includes food preparation, child care, budgeting and other content related to maintaining a home, as well as work sampling among clerical training projects.

Only trainees uncertain of occupational choice attend prevocational training. The prevocational classes are conducted by two full-time instructors.

Basic education as prevocational training – In one institution the prevocational component emphasizes preparing the trainee for occupational skills training by improving his basic education skills. The project is conducted in a health careers training institution. Trainees whose reading levels are below eleventh grade norms attend daily for eight weeks. The curriculum is job-related and includes medical terminology and an introduction to anatomy. It is interesting to note that only about one percent of trainees enrolled at the center go directly into skills training without need of the prevocational component. The project is conducted by two full-time instructors.

Training in interpersonal skills – One institution, a Skills Center, offers a unique prevocational training program for trainees who have not yet made an occupational choice or who may need some preparation before entering occupational skills training. The program, which lasts four weeks, emphasizes improving communication skills and interpersonal relationships so that trainees will be better able to succeed in a work situation. Classes are conducted in a laboratory setting, and the instructor uses the methodology of group process to assist trainees to

identify their personal goals.

This project is described in further detail in Chapter IV, Practices and Projects Worthy of Replication.

Employment orientation and prevocational training as part of the occupational skills training projects – A review of course outlines for occupational skills training projects revealed that elements of employment orientation and prevocational training components are frequently included in skills training curricula. In one Skills Center, for example, trainees in the clerical cluster who are ready to advance into training for secretarial positions must fill out applications and be interviewed by instructors before continuing their training. In another institution, machine shop trainees must punch in and out on the time clock in the shop (not in the Administrator's office, as is common).

These components are part of the curriculum for each of the occupational skills training projects in one institution in a rural area. The original plan for this institution was to provide work sampling and prevocational training as the major training focus. It was proposed that trainees spend their training time equally among four occupational areas: business, structural, mechanical, and farm and light industrial equipment. While the training projects have remained the same, trainees are now referred to one project only. The prevocational focus of the institution has been altered, but the principles of prevocational work are adhered to in some degree. Within the occupational area, trainees learn a little about a variety of skills. In the structural project, for example, trainees learn to draw blueprints as well as to read them. This training focus is appropriate in a rural area such as this where a "jack of all trades" is needed by employers.

Although there is wide variation among institutions in the form of these components, two objectives are, in general, held in common: (1) to improve the employability of MDTA trainees, and concurrently, (2) to improve their chances for success in occupational skills training.

Orientation – There is evidence that employment orientation is lacking in institutions providing only an orientation to MDTA at intake. A review of course outlines for occupational skills training in the three institutions providing this brief orientation reveals little, if any, content relating to job search and employment orientation. This suggests that trainees may gather these skills informally through individual counseling sessions and contact with skills training instructors.

TABLE 34

REASONS FOR TERMINATION OF TRAINEES IN PRE-VOCATIONAL TRAINING IN CITY 13

Reason	Number of Students
Did not appear after enrollment	16
Sickness	1 (returned to program later)
Moved out of State	2
Personal Problems	2
Beyond Scope of Program (drugs & alcohol)	4
Waiting for Enrollment in Skills Training	4
Married	1
Armed Service	2
Lack of Interest	1
Self-termination	2
Returned to School	1
	TOTAL 36

Of those terminated for "other reasons" five, or 2 percent of the total enrolled, were terminated for reasons which may be considered positive reasons – waiting for enrollment in training and returned to school.

Table 34 shows that a pre-vocational training component does serve to refine the processes of selection and referral. On the other hand, the fact that overall completion rate in this city is 64 percent, still less than optimum, indicates that pre-vocational training by itself does not significantly improve the retention rate of MDTA trainees in occupational skills training.

What prevocational training can and does accomplish is to match a trainee who is otherwise qualified for MDTA training with an occupation for which he is suited because of his interest and abilities.

The various approaches to orientation and prevocational training described are synthesized into a model containing the following elements:

(1) Written, specific objectives for the program.

(2) Orientation to MDTA and the training institution.

(3) An "employment development" component including: the employment interview, filling out applications, taking employment tests, reading classified advertisements, developing good work habits and so on.

(4) Visits by employers to discuss hiring practices.

(5) Opportunity for trainees, otherwise qualified for MDTA training, but without an occupational choice, to sample the occupational offerings of the training institution.

(6) Cooperative involvement in the development of the curriculum and its presentation between Employment Service personnel and staff from the training institution.

(7) Counseling by both counselors from the training institutions – related to test results and training schedule – and from the Employment Service – related to occupational choice and referral to jobs.

(8) A curriculum organized so that a trainee may advance out of orientation or prevocational training when his need for such training has been met.

CONTENT AND ORGANIZATION OF COUNSELING

Counseling was found to play an active role in the training of MDTA enrollees. Most counselors defined their roles as expediting services to trainees and providing individual counseling primarily to solve immediate problems. While counselors were

aware that these kinds of services were needed by trainees, they repeatedly indicated that the extent to which these were provided was a function of caseload size and time spent at other duties such as testing, referral, employment orientation, prevocational instruction, making out weekly payrolls and other administrative tasks.

Counselors were in general agreement that their primary objective was to help the trainee to complete training and to develop behavior patterns and attitudes appropriate for employment. In descending order of frequency, the following additional objectives were given: psychological and physical rehabilitation of the trainees, familiarize trainees with community resources, and familiarize the trainees with the training center and the project.

When asked to describe their duties, counselors indicated having a variety of responsibilities such as conducting individual and group counseling sessions, developing orientation and testing programs, monitoring attendance, participating with the Employment Service in trainee referral and job placement, supervising in-service training programs for staff members, referring to community referral agencies, visiting skills training classes, assuming administrative roles, and conducting and writing program evaluations.

Table 35 is a breakdown of the percentage of time spent by counselors performing these duties.

TABLE 35

Duty	Percentage of Time
Individual counseling	35 – 75
Group counseling	0 – 20
Orientation and testing	5 – 30
Administration (e.g., maintaining attendance reports, writing reports, staff meetings, etc.)	0 – 60

These data indicate that the extent to which counselors are able to meet the needs of trainees may be somewhat dependent upon the number of duties he is expected to perform. However, more significant is caseload size.

Table 36 indicates that 89 percent of the counselors interviewed have caseloads of fifty-one or more trainees with 41 percent having greater than 100. Counselors with caseloads of over 100 and a variety of duties to perform felt unable to

help trainees with their problems to the extent that was needed. When asked what they would like to see changed in the counseling program, counselors repeatedly answered smaller caseloads.

TABLE 36

SIZE OF COUNSELORS CASELOADS
(N = 27)

Size of Caseload	Percentage of Counselors
50 or fewer	11
51 - 100	48
101 - 150	15
151 - 200	22
over 200	4

Determining a single appropriate caseload size for all counselors is difficult for two reasons. First, as previously stated, counseling duties vary from one institution to another. Therefore, caseload size should differ among counselors whose duties consist primarily of monitoring attendance as compared with those responsible for testing, orientation programs, job placement, and group and individual counseling.

Second, the characteristics of the target population differ from one labor market to another and from one institution to another. For example, among the institutions surveyed the number of enrollees classified as disadvantaged ranged from 40 percent to 92 percent.[1] It is assumed that the greater the proportion of disadvantaged, the more time a counselor must spend solving individual problems. Problem-solving is impeded if he has other duties which are time consuming and impossible if his caseload size is of the magnitude reported in Table 36. Iti is unrealistic to expect these counselors to meet the needs of trainees even minimally under these conditions. Because of large caseloads, counselors spent most of their time counseling trainees with critical problems requiring immediate intervention. There was little opportunity for "preventive" counseling; that is, counseling occurring at the onset of a problem in an effort to forestall the development of a crisis and possibly termination. Perhaps this explains the low completion rate of 62 percent reported in Chapter II, Relevance to the Labor Market. While the figure may reflect inadequacies in selection and referral, it also suggests a need for "preventive" counseling services, hence, smaller caseloads.

[1]Source of data is a sample of 1493 MA-101 forms from projects evaluated in this survey.

In general, counselors could not pinpoint a particular counseling approach such as directive, or non-directive, which worked best for them. Most stated it depended on the particular trainee and his needs.

In only two institutions did counselors practice a clinical approach to resolving trainee problems. The remaining adhered more to a pragmatic approach in which the solution of immediate problems or "crisis intervention" was the focus.

TABLE 37

PROBLEMS CITED BY COUNSELORS AS MOST FREQUENTLY DISCUSSED IN COUNSELING SESSIONS

PROBLEM AREA	FREQUENCY OF RESPONSE
Financial	25%
Need for Services (Transportation, Child Care, Food Stamps, Housing, Legal Aid)	17%
Inter-personal Relations (with Spouse, Friends, other Trainees	16%
Vocational and Future Plans	8%
Emotional Problems Stemming from Insecurity & Anxiety	
Attendance and Tardiness	6%
Trainees' Health	6%
Lack of Motivation	5%
Lack of Progress & Difficulties with Studies	4%
Conflict with Institution	3%
Age	1%
Alcohol and Drugs	1%

Table 37 summarizes the kinds of problems cited by counselors as most frequently discussed in counseling sessions. It appears that most of their time is spent referring trainees to community agencies rather than counseling trainees requiring clinical assistance. This referral function could be more appropriately performed by counselor aides working under the supervision of a professional counselor.* The professional counselor would focus on clinical counseling where necessary in resolving trainees' problems. The emphasis would turn from crisis intervention to preventive counseling.

The availability of services provided by community agencies is a key factor in enabling counselors to meet the needs of trainees. Table 38 lists the services commonly available to counselors for referral.

Counselors were asked to what extent they found these services adequate in terms of meeting the needs of trainees. Sixty-one percent rated them as adequate. The 39 percent finding them inadequate reported that these services were in such great demand by the community at large that trainees had to wait their turn, which sometimes meant several days or weeks.

These data suggest that community referral agencies play a decisive role in the success of MDT institutional training. Counselors reported that the extent to which the problems confronting trainees could be resolved had direct bearing on their successful completion of the program.

TABLE 38

COMMUNITY SERVICES COMMONLY AVAILABLE TO COUNSELORS FOR REFERRAL

COMMUNITY SERVICES AVAILABLE
Legal aid
Drugs and alcohol rehabilitation
Psychological testing
Welfare assistance
Emergency financial aid
Family counseling
Maternal infant care
Housing
Home worker
Food allowance
Tutoring
Job placement
Hospitals and health clinics

*A professional counselor is defined here as someone having a Master's degree in guidance and counseling and state certification.

The counselors interviewed reported spending anywhere from 35 to 75 percent of their time in individual counseling sessions. The frequency with which contact is made with the trainees depends upon the needs of the trainee. Counselors reported that they may see a trainee daily until his particular problem is handled and then the counselor may not see him again for several weeks.

Counselors reported that counseling sessions were not regularly scheduled. Counseling sessions were held on an as-needed basis, with the majority of the sessions being initiated by the trainee. Counselors stated, however, that they themselves frequently initiated counseling sessions, either formally by scheduling trainees for appointments, or informally by walking through skills training shop areas or through the halls during breaks and changes of classes. In these instances, counseling was conducted "on the spot." Several of the counselors interviewed made regularly scheduled visits to training classes to discuss problems frequently confronting most trainees, the role of the counselor in their solution and to answer questions. Some counselors saw trainees only upon request of the instructor.

While many counselors visit training classes on a regular basis to answer questions of general concern, only three of the fifteen institutions visited conducted group counseling sessions. Observation of several of these sessions suggests that trainees share many of the same kinds of problems not of a personal nature which lend themselves to group counseling. There are several advantages to this counseling method. Perhaps the most valuable is that the trainee realizes he isn't the only one experiencing a particular problem. Trainees also have the benefit of hearing how peers have resolved similar problems and may be more willing to listen to their suggestions than those of the counselor.

Three-fourths of the counselors interviewed reported having frequent and effective contacts with the staff of the local Employment Service including a free exchange of testing and job information with Employment Service counselors and job developers. The remaining reported having very little or no contact with the Employment Service. In eight institutions, the Employment Service counselor was on the premises of the training institution either full or part time; in one of these institutions the Employment Service was the only counselor serving MDT trainees. In two institutions the counseling staff met annually for a workshop with Employment Service counselors and job developers to evaluate the program and plan for improvement. (The state and local MDT administrators also participate in this planning session.)

Most counselors questioned the adequacy of the Employment Service screening and referral procedures. Several counselors complained that the Employment Service

did not transmit test results or preliminary intake information on new trainees. Others reported that 15 percent to 35 percent of the trainees were inappropriately enrolled and were unable to do the work. These data lend further support to the discussion in Chapter II, Relevance to the Labor Market, which attributes the low completion rate of 62 percent to poor screening and referral. On the other hand, the Employment Service in one-third of the cities administered elaborate test batteries to screen and enroll trainees. In three instances, however, the test results were not transmitted to the MDT training institution for further use in counseling trainees.

The data on the academic backgrounds and years of related experience were obtained for each of the twenty-six counselors interviewed. Table 39 indicates that 92 percent (24) were college graduates with 46 percent (12) having Master's degrees or higher. It can be concluded that most of the formal counseling was done by persons in professional roles who had either counseling and guidance degrees or had been trained in counseling, psychology, teaching or social work.

TABLE 39

ACADEMIC BACKGROUND OF COUNSELORS (N = 26)

Academic Background	Counselors	
	Number	%
High school graduate	2	8
Bachelor's degree	12	46
Master's degree	11	42
Higher degree	1	4

CONCLUSIONS AND RECOMMENDATIONS

The data presented in this chapter support the conclusion that the quality of training in MDTA institutions is high.

The employers surveyed found MDTA trainees to be qualified for the positions for which they were hired. They emphasized that trainees were competent in performing job tasks and possessed appropriate work behavior and attitudes.

Over 90 percent of the trainees interviewed were favorably impressed with the training they were receiving. They saw themselves as making progress in their occupational skills and basic education training.

Trainees also viewed what they were learning as leading to the achievement of their training goals. Furthermore, there was general agreement that the training program had beneficial effects on their personal activities outside of class.

Various administrative policies serve to enhance or impede the quality of training provided.

A formalized regularly scheduled in-service training program for staff members is considered essential. Little more than half the staff members interviewed had participated in in-service training programs other than staff meetings.

Staff meetings, however, were found to be an integral part of the training programs surveyed.

Professional certification was found to be high for instructors of occupational skills training, basic education, orientation, and pre-vocational training.

The existence of a curriculum coordinator was found in only one institution. This position is considered a positive factor in quality training.

The Skills Center concept appears to enhance the quality of MDTA training; however, Skills Centers are found to be quite similar to non-Skills Center operations. The difference in quality relates to indicators which are intangible and difficult to measure, but are probably the result of administrative advantages available to Skills Centers. Annualized funding, for example, appears to permit more administrative and instructional freedom.

The content and organization of occupational skills training, basic education,

orientation, prevocational instruction and counseling have a direct effect on the quality of the program.

The occupational skills training portion of the MDTA institutional training program is of good quality. It provides appropriate facilities and instructional materials and qualified staff.

A mechanism needs to be provided by which the training institution has regular contact with the employer community. There are several ways to organize this system. One is the utilization of occupational advisory committees. Another is by providing instructors with released time to contact employers. The provision for a training evaluator or coordinator who maintains contact with employers is a means of relating the operation of the training institution to the changes occurring in occupations.

The teaching method used by most instructors was individual instruction. According to trainees, this method lends itself to the development of a favorable learning environment in which instructors exhibited an understanding of the learning needs of trainees.

About half of the basic education instructors surveyed had to some extent related their curriculum to the occupational training of the trainees. One difficulty appears to be a lack of occupational materials which have been adapted to the level of trainees enrolled in basic education.

The instructional materials were in sufficient quantity but lacking in variety, adult in subject matter but unrelated to the backgrounds of the trainees. However, the content of the materials dealt with the teaching of basic education skills such as reading, math and English and in this respect met the needs of trainees.

Diagnostic tests in reading and mathematics were usually given to the trainees by either the Employment Service or the training institution or both. Some instructors did additional testing when the trainee entered the class. Less than half of the institutions surveyed retested trainees upon exiting from the program. This is considered an inhibiting factor both in assessing the progress of trainees and in the effectiveness of instructional methods.

Instructors were academically qualified to teach basic education and experienced

in teaching prior to employment in MDTA. In addition, most had taken course work related to teaching the disadvantaged or to their area of specialization, for example, remedial reading.

The quality of orientation or pre-vocational programs is difficult to assess. The amount of time spent in an orientation or prevocational program is not necessarily an index of relevance and/or quality of the project. A lengthy orientation project may be detrimental to the effectiveness of the training project for two reasons: 1) delaying the trainee's entrance into occupational skills training; and 2) losing the interest of trainees through presenting "world of work" curricula to those having had previous work experience.

On the other hand, a single intake session of a few hours may be too brief a time in which to orient the trainee to the institution, to explain his enrollment in basic education and other classes, and to introduce the trainee to the regulations of the training institution.

There is a lack of evidence with which to determine the effect of orientation and prevocational training on completion and employment. There is a need for further research in this area.

The focus of counseling was to expedite services to trainees and to provide individual counseling primarily to solve immediate problems. The extent to which counselors were able to fulfill their role was inhibited by a combination of large caseloads and a variety of responsibilities other than the counseling of trainees. While an assessment of the quality of the counseling program is difficult, the low overall completion rate of 62 percent suggests that trainees are in need of more counseling services. While ineffective screening and referral procedures may also be a factor affecting completion rates, it can also be attributed to the need for counselor aides to share the workload.

It is recommended that the suggestions contained in the foregoing discussion be considered by training institutions for application to their facilities. Efforts should be made to encourage the exchange of experience information among both Skills Centers and other institutional training facilities.

PRACTICES AND PROJECTS WORTHY OF REPLICATION

CHAPTER 4

PRACTICES AND PROJECTS WORTHY OF REPLICATION

In this survey of MDTA institutional training, Mentec was given the responsibility of identifying those practices and programs which appear to be most effective in preparing trainees for the realities of the job market and which should be considered for replication.

In every institution included in the survey, Mentec found practices and programs which appear to be very effective in preparing trainees for jobs. Occupational skills training projects, in particular, appeared to be well-organized to replicate the on-the-job situation. That is, project equipment is similar to the kinds the trainee will use on the job; classroom and shop practices replicate the on-the-job practices of employing companies; and instructors, acting as supervisors and foremen, require the same performance as the job situation will require of the trainees.

In reporting on practices and projects worthy of replication, therefore, Mentec has selected those components which, in the judgment of the evaluation staff, stand out as most unusual and which are in most cases unique among the labor market areas included in the study.

OCCUPATIONAL SKILLS TRAINING

Two projects stand out because of their unique occupational offerings. The first project offers training in community service occupations; the second is a unique upgrading project in a hospital.

Community Service Occupations, Tucson Skills Center –

The project was developed to meet a need for training in emerging occupations. Labor market demand was created by the Model Cities program (Department of Housing and Urban Development) in Tucson. The project offers training in the following semi-professional occupations:

Teacher Aide
Employment Service Outreach Aide
Job Coach

Environmental Health Aide
Drug Abuse Counselor Aide
Consumer Education Aide
Geriatric Aide
Administrative Aide, City Government

These occupational offerings represent a significant departure from the more traditional and prevalent training projects in craft and service occupations.

The project demonstrates how MDTA can meet the particular needs of another community program, in this case, Model Cities.

In Tucson, Model Cities buys training slots from MDTA to provide trained workers for Model Cities delegate agencies. Trainees are selected from residents of Model Cities target areas who also meet the criteria of disadvantaged. An additional link between the MDTA system and Model Cities is provided by Model Cities employability teams stationed at local Employment Service offices. These teams select trainees for the project, refer them to the Skills Center and place trainees in jobs.

Table 40 presents the names of Model Cities delegate agencies which employ trainees from this project, the occupations for which trainees have been hired, and the number of trainees hired in those occupations.

Another most unique aspect of the Community Service Occupations project is that trainees are assigned to jobs before they are enrolled in training. In this way, a trainee enrolled in training for Drug Abuse Counselor Aide knows where he will be working and what his duties will be at the end of his training.

This activity is illustrative of the cooperative assistance which MDTA institutions may provide to other agencies of the government. In this instance the agencies of the government mentioned in Table 40 were in need of an orientation and prevocational training program to be conducted prior to placing the trainees into on-the-job training situations. This was accomplished by enrolling the trainees in the Skills Center in small groups, 15 each, for a

period of five weeks. Since the positions for which the trainees were hired were those of aides, the objective of the instruction was that of creating understanding of people, acquiring skills of dealing in interpersonal relationships, learning how to set goals, and conducting group discussions.

TABLE 40

EMPLOYERS OF TRAINEES IN COMMUNITY SERVICE OCCUPATIONS PROJECT, TUCSON SKILLS CENTER

Delegate Agency	Occupation	Number of Trainees
Tucson School District No. 1	Teacher Aide	20
	Nurse Aide	1
	Community School Director	1
Arizona State Employment Service	Coach (WIN)	1
	Outreach Aide	6
	Employment Service Aide	2
Arizona Division of Vocational Rehabilitation	Coach (DVR)	2
Pima County Environmental Health Department	Environmental Health Aide	6
Tucson South County Mental Health Service	Drug Abuse Counselor Aide	10
Commission for Economic Opportunity	Consumer Education Aide	4
Handmaker Nursing Home	Geriatric Aide	4
City of Tucson	Administrative Aide, Relocation Aide, Urban Renewal	1

More specifically, the content of the five week pre-employment instruction dealt with the following:

Introduction

to the Skills Center

to members of the group

to the Model Cities program, explanation of its goals, description of each of its parts

Generic aspects of the job of the aide

nature of the job, role and responsibilities of the aide

role of the non-professional or para-professional

on the job relationships – peer group relationships

employment situation in the community, where jobs exist

the human or social service worker in the community, roles of various types

Skill aspects of the job of the aide

communications skills, especially the use of group processes

identifying needs of individuals within groups

becoming involved with community agencies and civic organizations, how to deal with them

understanding the individual and the community, identification of pockets of poverty, the ethnic make-up of the community

making approaches to community resources

planning for action programs, gathering data, using data in making presentations, evaluating program practices and methods

identifying characteristics of those who seek assistance and those who give it

Knowledge aspects of the job of the aide

becoming acquainted with each agency in the community

becoming acquainted with the training opportunities in the community, where they are located, what they offer, eligibility for admission, length of training period

learning about the financial assistance opportunities in the community and the conditions surrounding the receiving of such assistance

Mentec judges this aspect of the project to be a highly effective way to ensure that training is relevant to the trainee as well as to the demands of the labor market. It should be considered for replication in other areas.

While the demand for training in semi-professional occupations may be particularly relevant to Tucson, Arizona, and other areas with similar labor market conditions, still it is Mentec's view that emerging occupations, in whatever occupational field, should be identified by MDTA in other labor market areas, and that this very innovative project in Tucson merits consideration for replication.

Laboratory Liaison Technician (Upgrade), Billings Hospital, Chicago – This unique upgrade project, less than a year old and in its second cycle of training, developed as a result of demands by striking hospital workers for upgrading within the hospital. A study of staffing patterns within the hospital by administration and staff revealed a need for workers at the level of laboratory liaison technician.

The project is unique in that it offers upgrade training for people already employed but in low skill occupations. Trainees have not had to drop out of

employment in order to acquire new skills, as is the case in many upgrade projects, but they continue to work while at the same time attending training to develop new skills in their occupation field.

Jobs at the technician level for the MDTA trainees are developed by the project staff within the complex of hospital laboratories so that trainees are upgraded before they finish training.

Fourteen hospital employees selected from dietary staff, laboratory helpers, housekeepers, and nurse aides are released from their jobs for two hours a day, three days a week to receive training for the occupation of Laboratory Liaison Technician, an unlicensed occupation offering more responsibility, requiring more technical training, and paying a higher salary than the jobs in which the trainees are currently employed. In addition, trainees receive five units of academic credit from a local junior college toward a license as Certified Laboratory Assistant.

MDTA and the hospital share the costs for a part-time staff (consisting of one occupational skills training instructor, one counselor, one administrator and one secretary). Costs of books and instructional supplies, classroom space and certain equipment are paid for by MDTA. The hospital pays for trainee's time away from the job, and trainees contribute three hours a week of their own time for training.

Another aspect which deserves consideration by MDTA in other areas is that the project is developed to meet the labor needs of a single employer. Although begun as a pilot project for the hospital, the project has been successful to the extent that plans are underway to fund a program under MDTA to train LPN's to become Registered Nurses. Under this plan, trainees would be granted leave of absence for one year to attend training without loss of jobs or benefits.

This kind of project for training underemployed workers merits consideration in other labor market areas.

Composite Skills Training, Scottsbluff – Mentec's survey included one rural area, Scottsbluff, Nebraska. The labor market area for Scottsbluff covers eleven rural counties where the primary industry is agriculture. In preparing people for employment in this area, the Scottsbluff MDTA occupational skills training projects offer training in a variety of manipulative skills which are relevant to a range of occupations within the rural labor market area, rather than training for a single occupational specialty.

A rural area such as the one in which Scottsbluff is located is more often in need of workers who can adapt themselves readily to the performance of a variety of occupational skills which are included in the requirements of the tasks of one job.

The "structural" project, for example, includes training in planning and drafting

for building trades, carpentry, woodworking, painting on wood and metal, care and sharpening of metalworking and woodworking tools, structural concrete, sheet metal work, plumbing, welding, and maintenance of electrical equipment. Similarly, training is offered in a variety of mechanical skills, clerical skills, and operation and maintenance of farm and light industrial equipment.

A trainee is trained in the fundamentals of these skills so that when he has completed the project he has acquired skills which are valuable to a wide range of employers, or which make him more valuable to a single employer because he is so versatile.

Mentec is impressed with the way in which MDTA training has been organized in Scottsbluff to meet the needs of this rural region. In Mentec's view, this program should be considered for replication elsewhere in similar labor market areas.

COUNSELING

The Guidance and Occupational Center, St. Paul – In presenting this project for consideration, Mentec emphasizes the counseling component of the Center, first, because the project is organized to provide optimum conditions for personal counseling, and second, because of the emphasis on counseling for personal development.

The counseling component of the Center has been organized to make the most efficient use of the professional counseling staff.

Case conferences are held every week with instructors and supervisors.

Complete progress and test/re-test records are maintained.

Counselors have access to the most advanced stenographic and recording equipment to maintain strictly accurate and up-to-date records of counseling contacts.

Four full-time clerical personnel are assigned to the counseling component to maintain the records of counseling sessions.

The counseling program emphasizes the trainee's long-range, overall adjustments that may be required for successful work experience. Each counselor has a maximum caseload of 15 trainees, and trainees meet with their counselors at least once a week for personal counseling.

The counseling approach at the Center does not eliminate problem-solving and crisis-intervention on the part of the counselor; counselors at the Center refer trainees to community agencies for supportive services and provide problem-solving services themselves, as is common in other training institutions which were surveyed. However, the emphasis of counseling at the Guidance and Occupational Center is on the personal development of the trainee, in his private life and in his on-the-job situation.

This approach to counseling is unique among the training institutions included in Mentec's survey. The fact that the Center has an overall average daily attendance record of 92% further indicates that this project merits consideration for replication in other training institutions.

PRE-VOCATIONAL TRAINING

Orientation and prevocational training components are common to the MDTA training institutions in Mentec's survey. Two programs have unique features which may be considered for replication elsewhere.

Employment Orientation, Portland, Oregon, Skills Center – The aspect of the project which should be considered for replication is that employment orientation is available to any person, underemployed or unemployed, from the MDTA client population at large, whether or not he is an applicant for occupational skills training. The project is **not** operated to screen candidates for occupational training. It is a service provided by MDTA to the disadvantaged population.

The goal of the project is to increase the trainee's confidence in his own ability to deal constructively with others, in this case his peers, and thereby enhance his ability to succeed in a work situation.

The Employment Orientation project is conducted daily for a period of three consecutive weeks. Ten of the fifteen slots allocated to each three-week cycle of the project are reserved for clients of the local Employment Service.

Another significant feature of the project is the setting aside of two full hours each day to group and individual guidance and counseling. Employment Service and MDTA counselors conduct the group counseling sessions and provide continuing individual counseling services.

The content of the curriculum titled MDTA Employment Orientation, includes the full range of subjects which are, no doubt, found in many other lengthy orientation programs. Some of these are personal inventory and evaluation, family relationship, health and hygiene, job finding, civil rights and due process of law, job

interview techniques, vocational goal planning, skill in communication, social security benefits and regulations, grooming, and the like. Employment testing is carried on during the project, and time is provided for individual job search and interviews with prospective employers.

To repeat, however, Mentec emphasizes that the unique aspect of this project is the provision made for allocating two-thirds of the slots to individuals who appear to be ready to go to work except that they are deficient in certain other job requirements than job knowledge and job skills. Thus, they are not enrolled in occupational skills training, but spend all of their time in getting ready to do all of the other things that are essential aids in helping an individual to obtain a job and retain it.

It appears also that another factor in the successful operation of this project is the variety of backgrounds of education, work experience, age, customs, ethnic origin, and other behavior patterns that the trainees exhibit. These contribute a great deal to the exchange of opinions and the consequent breadth of understanding which the enrollees gain from participation in the project.

Training in Interpersonal Skills and Goal Setting, Tucson, Arizona Skills Center – Unlike other prevocational projects included in the survey, this project emphasizes the development of positive inter-personal relationships as an important aspect of preparation for employment rather than emphasizing information about job-search and orientation to the world of work. Trainees who participate in this project may be referred by the local Employment Service counselors or by occupational skills training instructors, either because the enrollee has not made an occupational choice or because he is having difficulty adjusting to the training situation and will benefit from more extensive employability training. The curriculum for the four-week training cycle includes communication skills, inter-personal skills, goal setting, problem-solving, and work habits.

Training sessions are conducted in a workshop setting and focus on small group processes. Techniques of instruction include role play and simulation, problem-solving activities, video taping and replay, and verbal feedback exercises.

CURRICULUM DEVELOPMENT

Curriculum Development, Behavioral Objectives, Tucson, Arizona Skills Center – The Tucson Skills Center conducts a program of curriculum development which is outstanding in the several aspects listed below. It merits consideration for replicating elsewhere.

The most significant aspect of this program is that a curriculum development specialist is a full-time member of the Skills Center staff. This person supervises the development of curricula by project instructors, assists them to identify the behavioral objectives required for successful completion of the training, and organizes curricula and teaching units in written form for the most efficient use by the Center staff.

Curricula for all training components are based on behavioral, or performance, objectives. The curriculum for each project lists areas of competency and a series of performance objectives for the areas, each with a series of practice exercises and assignments; the curriculum also includes daily and cumulative progress charts which record the trainee's progress as he achieves the behvioral objectives of the project. The course of study is individualized by the instructor for each trainee.

For example, the curriculum for the GED preparation project lists 15 areas of competency, from "Punctuation" to "Exponents and Roots." Each of these areas may consist of up to 55 practice units which include exercises and mastery tests for the trainee to complete at his own pace. When he has completed a unit, his progress is recorded by the instructor. The trainee remains in the class until he has achieved the performance objectives in all areas of competency required for his success in that component of training.

This method of organizing curricula allows for "instant remediation" for a trainee who may require certain basic education skills before he can proceed in his skill training. For example, a trainee in auto mechanics, whose basic education skills are otherwise strong, may interrupt his skills training briefly to brush up on measurements and then return to skills training with the knowledge he needs to complete. Only that material which is necessary for him to achieve a specific behavioral objective is covered in the remedial work.

Finally, this kind of curriculum development ensures that the content of every component of training will be directly related to the demands of the trainee's occupational skills assignment. The determination of performance

objectives begins with the occupational skills training instructor, who establishes the performance standards for successful employment in a given occupation. The objectives for related education classes are determined by the skills instructor and the related education instructor on the basis of the same performance standards required for skills training.

In Mentec's view this curriculum development program is an outstanding example of how curricula can be developed to make the most efficient use of training time and provide training which is highly relevant to occupational performance standards.

PRACTICES ENSURING RELEVANCE TO THE LABOR MARKET

Occupational Advisory Committees, Pittsburgh Skills Center – While the survey of MDTA institutional training revealed that occupational advisory committees are in existence intermittently throughout the labor market areas under study, Pittsburgh is the only labor market area surveyed where a formal occupational advisory committee is functioning for each occupational skills training project.

In Mentec's judgment, the occupational advisory committee is a key to maintaining continuing relevance of training to the labor market as well as helping to improve the quality of instruction. For this reason, the occupational advisory committee system in Pittsburgh is worthy of replication.

These committees meet formally once a month. Membership consists of employers, instructors, Employment Service counselors, and administrators from the training institution. A copy of the agenda is mailed to each committee member in advance of the meeting date.

As is the case with occupational advisory committees in other cities in the survey, items of business include curriculum review, evaluation of trainee's performance, technological developments in the field, acquisition of new equipment, and hiring standards.

It is important to emphasize here that MDTA in Pittsburgh is unusual in that a formal system of occupational advisory committees has been established, thereby ensuring continuing exchange between instructors, administrators and employers who hire MDTA trainees.

EVALUATION OF PROJECTS BY EMPLOYERS, INDUSTRY EVALUATION COMMITTEE, PROVIDENCE, RHODE ISLAND

This MDTA institutional training organization conducts an evaluation activity which enlists the continued cooperation and support of employers in the Providence-Pawtucket labor market area.

The evaluation effort includes certain significant features:

a committee of employers who may provide jobs for trainees enrolled in each of the occupational skills training projects conducts the evaluation effort

periodic evaluation visits are made, but not on a fixed schedule, with no advance information conveyed to instructors, trainees and other staff members (a 52 week project may be evaluated three times within that period)

changes in committee membership are made at intervals in order to give opportunity to a variety of industry representatives to evaluate the training

Curriculum content, teaching practices, equipment, instructional materials, methods of instruction, methods of measuring trainee progress, facilities, are reviewed during the evaluation process. The committee's findings are then conveyed to the administration and the staff.

Beneficial effects have followed from the evaluation visits:

the training has constantly been up-dated by the introduction of the latest practices found in the occupation surveyed

trainees have been aided in job placement

the MDTA institution has been brought to the attention of employers who may not have been aware of its existence

employers have assisted the MDTA training institution by providing technical manuals and materials, by occasionally loaning or donating equipment to substitute for that which is not in operating condition or to add needed

variety, and by making representatives available to discuss matters with trainees.

While the practice described above is not entirely new in training institutions, Mentec suggests that the Rhode Island example should be considered for replication because it is conducted as a continuous, systematic adjunct to the MDTA institutional training program in that labor market area.

Training Evaluators, Houston, Texas, Skills Center – The Houston Skills Center utilizes three full-time training evaluators in ensuring that training at the Center is relevant to the labor market and of the quality desired by the employers. These persons are full-time employees of the Skills Center.

The training evaluators are required to perform two major functions: (a) conduct the instruction in the job-readiness class, (b) conduct monthly interviews at the place of employment over a period of six months with employers who have hired trainees from this Skills Center. Every trainee who reaches the point at which his connection with the institution will be terminated is required to participate in the job-readiness instruction which requires attendance for a full five-day week. Employers are asked to evaluate trainees in all areas of job performance, attitude, and work habits, using an evaluation form provided by the Center which lists in detail the areas of competency relating to the occupation.

The Texas Employment Commission cooperates in this endeavor by providing on a weekly basis the names of all trainees placed during the preceding week.

The results of these evalutions are shared with occupational skills training instructors and are used to modify curricula for occupational skills training projects.

The particular activity described in this section was very recently established at the Houston Skills Center at the time when Mentec's staff conducted the evaluation. As a result, statistical evidence of its effectiveness was not available. The idea, however, is sound since it provides the possibility of bringing the Skills Center closer to the employing community without by-passing the Texas Employment Commission, and it certainly possesses the potentiality for making the training more relevant to labor market needs and raising the level of its quality. Mentec considers that this Skills Center component is worthy of replication in both types of MDTA institutional training.

In order to provide more information about the training evaluation unit, its objectives and functions, some descriptive material about it is included in Appendix G, Houston Skills Center.

The staff of training evaluators provides the Houston Skills Center with a mechanism for self-evaluation which seems to be effective in ensuring that occupational skills training is relevant to the needs of employers. This program should be considered for replication elsewhere.

THE "LEARNING CENTER" CONCEPT

Mentec's survey of MDTA institutional training revealed a wide-spread interest in providing a learning environment which includes the most advanced teaching equipment and materials and which makes the most efficient use of time for both instructors and trainees. These objectives have led to the implementation of the "learning center" concept in Basic Education programs in three of the 15 cities included in the survey – Tucson, Pittsburgh, and Houston.

The learning centers as they have developed in these cities have the following components in common:

the **physical environment** is a very large, undivided space, with individual study areas, usually carrels, large enough to accommodate a maximum of 15-20 trainees.

the learning center is **equipped** with an extensive array of teaching machines (such as Language Master), instructional equipment (such as perceptiscope, overhead projector), and programmed materials for individual instruction.

the instructional staff work as a **team** of teachers and teacher aides who are available to assist each trainee with his studies. This team teaching approach allows for maximum use within the education program of the resources of the teaching staff.

courses of study are individualized for each trainee and units of instruction are **self-teaching** and self-evaluating.

a trainee spends only as much **time** in a program of study as he needs to strengthen his basic education skills for more successful occupational skills training or employment.

The learning centers are, in Mentec's view, outstanding examples of an optimum learning environment. The learning center concept appears to be similarly applicable to MDTA institutional training elsewhere, and should be considered for replication.

RECOMMENDATIONS

It is recommended that the following practices and projects be replicated:

Community Service Occupations, Tucson Skills Center.

Laboratory Liaison Technician (Upgrade), Billings Hospital, Chicago.

Composite Skills Training, Scottsbluff.

The Guidance and Occupational Center, St. Paul.

Employability Orientation, Portland Skills Center.

Training in Interpersonal Skills and Goal Setting, Tucson Skills Center.

Behavioral Objectives, Tucson Skills Center.

Occupational Advisory Committees, Pittsburgh Skills Center.

Evaluation of Projects by Employers, Providence.

Training Evaluators, Houston Skills Center.

The Learning Center Concept.

CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The information collected during this evaluation, as it relates to the functions of the Employment Service in the manpower training system and to the relevance of the training system to labor market requirements, indicates that the overall completion rates as a percentage of input are lower than should be acceptable for a federally funded program. In addition the relevance of the program to labor market requirements is low as reflected by job placements, both as a percentage of training completions and as a percentage of input into the program.

It has been shown that high placement rates can be attained in certain occupational skills. It has been shown that relatively high placement rates can be reached by certain institutions in occupations which show lower placement rates in other cities. The establishment of a national standard of placement of trainees at the level of eighty-five percent is necessary. This standard should apply to state, institution, and occupational skills programs on a fiscal year basis. The standard of eighty-five percent represents the employment rate based on the number of enrollments, but not including those trainees who drop out within the first five days of enrollment. However, placements as a percentage of completions should be at the ninety percent level. Occupational skills training projects that fail to maintain these levels of accomplishment should be replaced.

An eighty-five percent effectiveness rate can be obtained under this program by improvement of the methods used within each of the system components.

The forecasting of labor market requirements should be developed into a more precise science through the use of predictive modeling techniques. The importance of forecasting in manpower management extends beyond the manpower training requirement. It is essential to extend the general capabilities for forecasting on a national level to forecasting on a local level. The determination of training needs is an essential component of total manpower management and planning at the local level. Forecasting is fundamental to manpower planning and a capability to project manpower needs three years in advance should be developed. To complement predictive forecasting an occupational skills category approach should be taken in the forecasting and budgeting cycle in order to permit the local and state authorities flexibility in management. Responsibility for determining training needs and in meeting effectiveness standards

should be made clearly that of the Employment Service. Manpower planning and advisory groups can assist but organizationally should not be assigned the decision responsibility for federally funded programs. Performance effectiveness in manpower training programs should be audited by federal or regional agencies of the Labor and Health Education and Welfare Departments.

The need for new concepts in the job development component of the manpower system is suggested by the need for creating more quality job opportunities which are career oriented for the disadvantaged, with reasonable expenditure of resources. The use of technically competent, experienced personnel with stature who can develop group demands should be extended. Insight into technical and management trends is essential. The function should be performed in close cooperation with the forecasting activity and primary emphasis placed on development of group requirements rather than the satisfaction of individual job needs based on market micro-mobility.

The several separate manpower programs existent in each local community increase the need for lead management of the federal effort by the Employment Service in the community and above. Program coordination should be positively managed through the labor-Employment Service channel. Placement resulting from positive coordination, coupled with improved forecasting, and selective placement will maintain the needed balance between social obligation and business enterprise.

The quality of training observed in manpower development institutional training facilities was reflective of the national interest and concern for special training for disadvantaged persons. The major components of the program including orientation, prevocational training, basic education, occupational skills training, counseling and supportive services are a responsive total entity that in design meets the needs of this training objective. In method and level of service there is an opportunity for refinement and quality magnification.

The institution or Skills Center should complement, if not actually operate, the trainee analysis facility needed to support the Employment Service in their trainee selection. A comprehensive academic, aptitude and personal characteristic evaluation center is needed to support manpower development and other applicant functions. Such a center would be useful for evaluative purposes throughout the training cycle.

Orientation of trainees is an important function and introduction to the training process is first made at this point in the cycle. Positive impressions are necessary and should be oriented to the occupational and behavioral concepts which the training facility expects to promote. A general improvement in the quality of orientation materiel, organization and orderliness of facilities can be attained.

Preparation of the trainee for the realisms of occupational training and productive employment requires specialized prevocational instruction. Adequate instruction identifies the level of preparation and reinforces those with deficiencies. As a continuation of the evaluative selection and preparation process it deserves support, but its use should be minimized as a holding technique.

Basic education appears to be most effective when vocationally oriented. The need for class instruction in basic education subjects is recognized but the association, both physically and in course content, with the trainees' actual or anticipated vocational program should be encouraged.

Occupational skills training is relevant to the needs of the trainee and to the labor market in many aspects. The responsibilities generally credited to the Employment Service for proper skill selection should be magnified to permit the training facility to conduct socially satisfying programs.

The selection of trainees into MDTA institutional programs should be based on an evaluation and determination of reasonable aptitude for completion.

Training should be conducted in skills for which there is a certified requirement which in turn is based on standardized predictive forecasting techniques.

Programs which do not involve the extensive investment in vocational facilities should be the primary means for supporting training of those persons who have little potential for satisfying a vocational skill labor shortage, or skill which would not be met through means other than federally funded manpower training programs.

The provision of complete supportive services is merited for properly selected trainees and such services should be extended to the early employment phase. Training material and job essential tools of a modest amount should be included as a supportive service.

The prompt transition to employment under a concerned employer is a major test point in the skills training cycle. The employer evaluation responsibility, which should be introduced into the training-job development cycle, could be jointly accomplished.

Counseling services should be and in many cases are closely associated with supportive services. The capability of providing professional psychological services as a foundation for counseling needs to be augmented with intern counselors or counselor aides. Institution resources for providing supportive services, under more direct accessibility to or management of the training center, should be increased.

RECOMMENDATIONS

To increase the relevance of institutional programs to labor market requirements

it is recommended:

That standards of systems effectiveness based on placements as a percentage of enrollment be adopted. The suggested standard is 85 percent to be attained by 1974. The suggestions made in this report should materially assist in achieving the effectiveness standard.

That the methods for forecasting labor market requirements be substantially augmented and refined by the development of improved local labor forecasting techniques.

That improved methods for determining the potential of training applicants be developed and that standards of eligibility for entrance into occupational skills be adopted. These standards, which should be in addition to the present disadvantaged criteria, should indicate the required potential for successful completion of training and subsequent performance on the job. Special programs should be provided for other disadvantaged persons fitting their capabilities.

That applicant/trainee test and evaluation facilities be made a part of the Employment Service/training institution resources in which the applicant's intelligence, education, aptitude, potential proficiency, and social fitness can be determined. This center should include provision for extended prevocational training and job exposure.

That responsibility for manpower planning and achievement of objectives be clearly assigned to the State Operations Committee, and that they be assisted by appropriate area planning and industrial advisory groups.

That the function of job development be technically improved and reoriented to development of industry and occupational group requirements. The concept should include responsibility for new occupation and work development projects.

That a meaningful management and accomplishment reporting system including a quarterly review and analysis report for the local Employment Service and training institution be prescribed and adopted.

To increase the relevance of institutional training programs to needs of the disadvantaged, it is recommended:

That the concepts of central administration, base funding and total vocational training entity that have contributed to the innovative progress of the Skills Centers be adopted for other manpower development institutional training facilities.

That the employment at enrollment feature of the JOBS program and the professional capabilities of the institutional training system be legislatively correlated to permit the operation of a training-to-jobs system that utilizes the best features of both programs.

That the special needs of the disadvantaged trainee be recognized and that assurances of retention of the trainee in the productive labor market be enhanced by evaluation and qualification of employers and by the provision of technical assistance and supportive services to the employer/employee.

That the results of this evaluation be conveyed to state vocational education authorities and institutional training centers.

That the additional suggestions made in this report be adopted.

APPENDIX A

OVERALL STUDY OBSERVATIONS

OVERALL STUDY OBSERVATIONS

The observations discussed in this Appendix are the outgrowth of experience gained throughout the entire spectrum of the contractual evaluation.

Task Group to Identify Emerging Occupations – There exists a great similarity of training offerings among MDTA institutional operations in the different labor market areas. These training projects generally are limited to the traditional and usual occupations which are found everywhere. Training for employment in these occupations is also offered in public and private vocational schools, technical institutes, and community (junior) colleges. MDTA institutional trainees are brought into direct competition with graduates of these institutions, often to their detriment.

To counteract this competition, steps should be taken to identify other unusual and unique kinds of job opportunities which might then be readily and quickly included among the offerings of MDTA training institutions. It is recommended that the Operations Committee in each labor market area should constitute a Task Group from among its members whose main responsibility would be to study economic and other developments which create kinds of jobs heretofore not available in the labor market area or not considered suitable for MDTA institutional training. In addition, another task of this group would be to maintain constant contact with public agencies in order to identify different and unique occupational groupings in the public sector in which training might be offered to MDTA trainees. Beyond the tasks of identifying new and emerging occupations, this Task Group should also be given the responsibility of bringing together the local training institution administrators and representatives of other public agencies and civic organizations, then with them creating training offerings in occupations which were not previously available to the disadvantaged. An example is the result of cooperative action between representatives of the Model Cities agency and the training institution which led to the formation of a successful Community Service Occupations Training Project in the Tucson, Arizona, Skills Center.

It is recognized that some activity of this kind may have been in existence since the inception of MDTA activity throughout the country. However, the thrust of this recommendation is the emphasis which should be placed upon establishing a permanent, continuing Task Group which would devote all its time to the tasks briefly mentioned above. The evidence shows that the need is great. Certainly, this addition to the job-hunting component of the MDTA institutional training program may go far toward injecting more innovative and imaginative ingredients into its operation.

Coordination – Coordination is defined as the process by which the training institution maintains contact with those occupational groups and their members in whose range of occupations training is being offered. The main purpose of this effort is to obtain the information about changes and developments in the occupations which can then be transmitted to the institution and the appropriate staff members who should incorporate this information in the content and practices of the training projects. Such contacts may lead to job placements, but the main aim of coordination is to increase the relevance of the training and to raise the level of its quality. Coordination is not a duplication of the job development activities of the Employment Service.

Mentec recommends that a coordination function should be made a part of the table of organization of each MDTA training institution, Skills Center, or other operation. The name of the function is not important. The implementation of the coordination concept is the significant point in this recommendation because the effort of maintaining constant and regular contact with the employing organization, for the purposes mentioned above, should result in greater benefits to the trainees and to the training institution.

Entry-Level Job Concept – The concept that MDTA institutional training is designed to prepare trainees to become employed in entry-level jobs is causing some confusion among those who are engaged in this program as well as others who may not be closely involved as administrators, instructors, counselors and the like. This state of confusion is the result of the absence of a clear, concise definition of the term, which causes a variety of interpretations, none of which is either entirely correct or entirely wrong. One notes, in reviewing the MT-1 forms that some job titles denote jobs that it is difficult to conceive of as being entry-level, e.g. is the job of Licensed Practical Nurse entry-level or career level? Is "welder, combination" a job on the lowest rung of the hierarchy of welding jobs or is it higher up in the scale? If it is not an entry-level job in this occupation, why is it offered for training in the MDTA institutional program?

Another illustration relates to the emphasis placed on the offering of job cluster training. Does this mean that the trainee who completes the job cluster training within the specified time period is qualified only to accept an entry-level job, or is he prepared to work competently at a higher level within that job cluster? Or, we might examine one more cluster of occupations, such as the machine shop or machine tool group. If a trainee completes this training cluster satisfactorily within a fifty-two week period, is he qualified to accept a job as a full-fledged machinist with possession of all the requisites that such a job implies, or what job in this field may he aspire to upon completion of the project?

These illustrations and questions are cited here mainly to emphasize two points: (a)

Entry-level jobs in different occupational hierarchies are extremely varied in the kinds of knowledge and the degree of manipulative skills required; (b) It would be helpful to those engaged in the MDTA institutional program to clarify the term, and to set the parameters within which this program of training is conceived of as operating.

Other Special Studies – Three aspects of MDTA institutional training appear to need further study. First, there is a need to determine the effectiveness of the individual referral practice. A second study is needed to determine the value of the MDTA training operations of private institutions which have participated in the program. A third practice which may be in need of evaluation is that which provides for bidding for contracts to operate institutional training projects. It is questionable whether many persons know about this practice, and also whether it results in lower costs and effective training benefits.

The following studies are recommended:

1. A study of the effectiveness of the training provided by private schools and technical institutes under the MDTA institutional training.

2. An evaluation of the individual trainee referral procedure authorized under the MDTA institutional training program to determine its relevance, quality, and utility.

3. An evaluation of the cost bidding practice as related to awards of contracts under the MDTA institutional training program to determine the extent of cost benefits derived.

Occupational Advisory Committees – Manpower Advisory Committees, as reported in the annual MDTA reports of the Secretary of Health, Education and Welfare, and the Secretary of Labor are in existence on the National and Regional levels. Mentec's evaluation team found similar committees on the state and local level in few of the labor market areas which were visited. This system of committees has been established to provide advice on courses of action pertaining to manpower policy, identify emerging manpower problems and mobilize support for manpower programs.

The purpose of the comments made above is that of pointing out the necessity for a different approach to gaining relevance and quality in the institutional training activities of the MDTA program. It is, therefore, strongly recommended that the practice of

establishing Occupational Advisory Committees, each with a responsibility of acting within a specific occupational field, should be incorporated into the MDTA institutional training structure. It is recommended further that the establishment and actual use of these committees should be made one of the criteria by which the effectiveness of MDTA institutional training is measured.

This recommendation is based upon the rationalization that the prospect of gaining greater relevance and quality of the training designed to make people employable can be enhanced when those who are the recipients (employers) of the product (trainees) are given the opportunity to advise and assist in the operation of the training projects. Since the members of Occupational Advisory Committees are employers, representative employees, educational agency representatives, and Employment Service representatives, it is evident that these groups are in the best position to aid in making the MDTA institutional training directly relevant to labor market needs and of the quality desired by employers.

Curriculum Coordination – One aspect of the MDTA training institutional operation was the absence of an organized, professional approach to preparation of curriculum materials, establishment of performance objectives and assistance to instructors in the making of a choice of appropriate teaching methods. It is recommended that a standard of approval of an application for designation of an institution as a Skills Center should be the presence in the staff structure of a professional curriculum coordinator. The presence of such a person, who would devote full-time to the important task of curriculum organization, would tend to improve the quality of the training materially. (For a description of the position and its functions see Chapter IV, Practices and Projects Worthy of Replication).

Counseling – The counseling function, in the setting of the MDTA training institution, is extremely important. Its proper performance can be a valuable asset in facilitating smooth operation since it may be used to smooth out the many frustrations of the trainees which lead to improper behavior and slow progress in learning the knowledge and skills necessary to make them employable. Mentec evaluation team members found that, in the main, counselors carried extremely heavy case loads and in addition were assigned to other duties, the performance of which reduced the time available for carrying out their main responsibilities.

Because the population which enrolls in MDTA training institutions is faced with so many problems and difficulties, many more than would be found in a normal training

institution, it is urgently recommended that a strong effort be exerted to appropriate funds to support the employment of larger numbers of counselors. Also, it is recommended that a policy be established setting guidelines for counselor-training ratios so that local MDTA training administrators may have standards by which they may govern their actions in employing and effectively using the counselors in their training institutions.

Intake and Exit Tests – The administration of intake and exit tests perform the valuable function of (a) providing a base of information upon which to determine intelligent trainee assignment to basic education and occupational skills training, and (b) a means of measuring trainee progress as well as the effectiveness of the instruction.

Mentec's findings in this case indicate that testing as a system was not uniformly widespread among the MDTA training institutions studied. Also, the local Employment Service offices did not generally furnish to the training institutions the information they obtained from the test batteries which they are required to administer when persons apply for admission to MDTA institutional training.

It is recommended, therefore, that the National and Regional personnel charged with the responsibility of administering and monitoring MDTA institutional training should establish a policy requiring the setting up of a testing program by each MDTA training institution and that the ensuing practice be established as a criterion of measuring the effectiveness of performance of such institutions.

APPENDIX B

TRAINEE PROFILE

TRAINEE PROFILE

A COMPARISON OF STUDY SAMPLE WITH THE NATIONAL DISTRIBUTION

The purpose of this appendix is to describe the population being served by MDTA institutional training. In order to provide such data, Mentec staff collected a sample of MA-101 and 102 forms on trainees who had been enrolled in the projects under evaluation. To insure timeliness these forms were selected for the 20 trainees who had most recently terminated from each of the projects which were evaluated.

The trainee profile presents graphically a percentage distribution of the demographic data describing the MDTA trainee population for both Mentec's sample (hereafter referred to as the study sample) and the national survey. It is immediately apparent that the two distributions resemble each other very closely, thus suggesting that the survey sample is representative of the total MDTA population. This similarity also lends validity to the data obtained from form MA-102 as discussed in the chapters on relevance and quality of training.

DISCUSSION OF THE DATA

Sex:

The data obtained from the study sample show that there are nearly twice as many males (66%) enrolled in MDTA training as females (34%). The national survey distribution indicates that 59% of the trainee population are males.

Age:

The study sample indicates that 90% of the MDTA trainees are forty-four years of age or under as compared to 91% in the national survey.

Ethnic Background:

According to the study sample data, 60% of the trainee population are White, 35% Negro and 4% are either American Indian, Oriental or other. These figures compare almost equally with the national data indicating 59% White, 36% Negro, and 4% either American Indian, Oriental or other.

Spanish Surname:

9% of the study sample bear Spanish surnames compared to 13% in the national

survey.

Head of Household:

54% of the study sample and 55% of the national distribution are heads of households.

Number of Dependents:

The majority of trainees in the sample (54%) do not have dependents. Comparable data from the national survey are not available.

Highest Grade Completed:

It is interesting to note that only 12% of the trainee population in the study sample and 14% in the national survey fall within the eighth grade and under category, while 47% and 48% respectively have completed the twelfth grade or above. These data will be discussed in another chapter dealing with basic education and the quality of the training.

Disadvantaged:

The overall percentage disadvantaged is 67% for the study sample and 65% for the national survey, thus, in either case, achieving the 65% minimum established under MDTA.

Employment Status:

Clearly, the data shows that about three-fourths (78% of the sample and 74% of the national survey) of MDTA population are unemployed at the time they enter training.

Years of Gainful Employment:

It is an interesting point that 86% of the study sample and 84% of the national survey have had one or more years of gainful employment. Of these percentages, 54% have been employed three or more years with approximately one-fifth having ten or more years employment experience.

This suggests that while trainees usually enter training as a result of unemployment, most have had substantial experience in the labor force. We may speculate from these data that MDTA institutional training offers an opportunity for workers without marketable skills but with work experience to acquire skills more relevant to current labor market demands. Although data are not available to support any conclusions, one

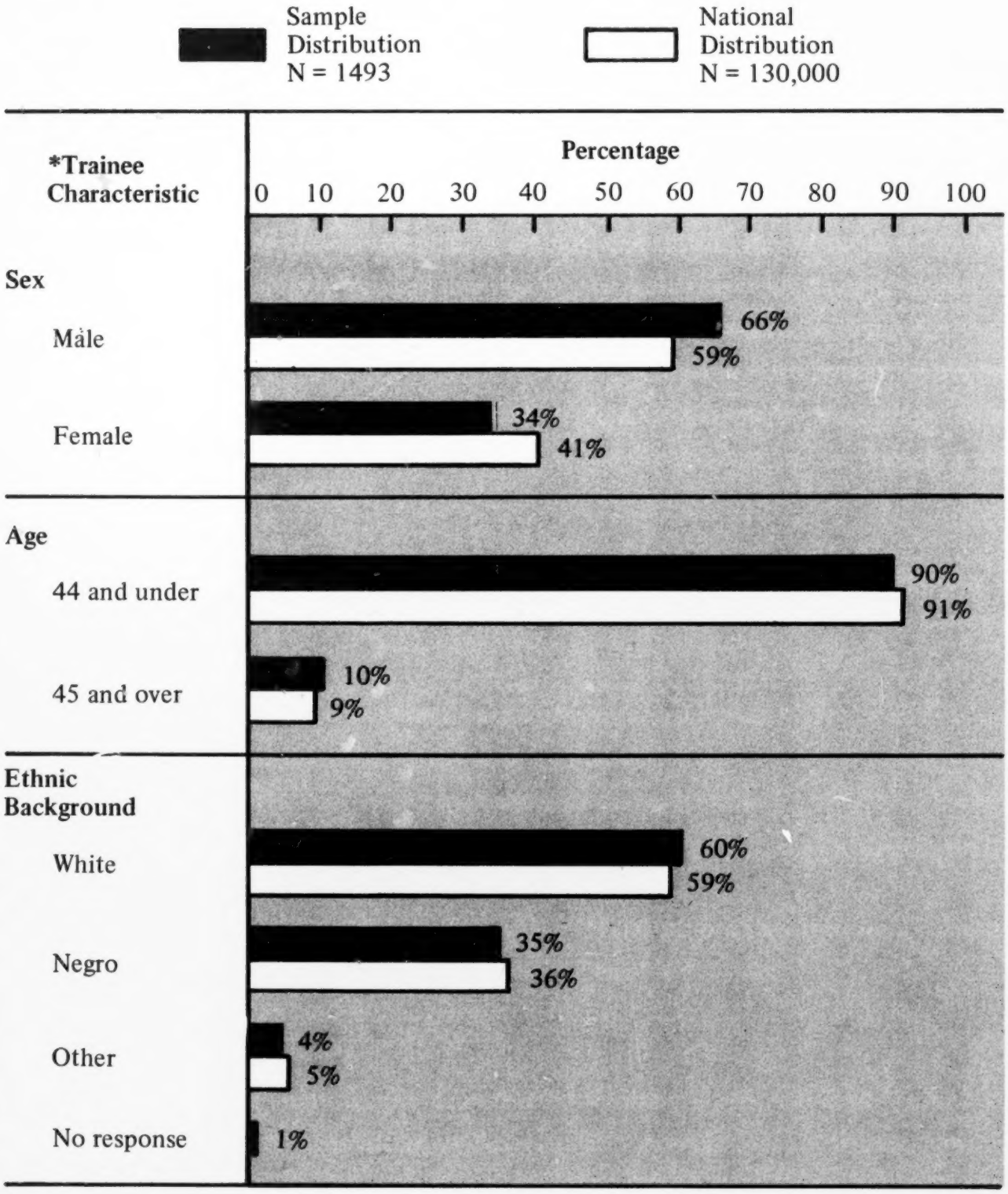
may assume a significant number of trainees will enter jobs representing an upgrade from those held prior to training.

Summary:

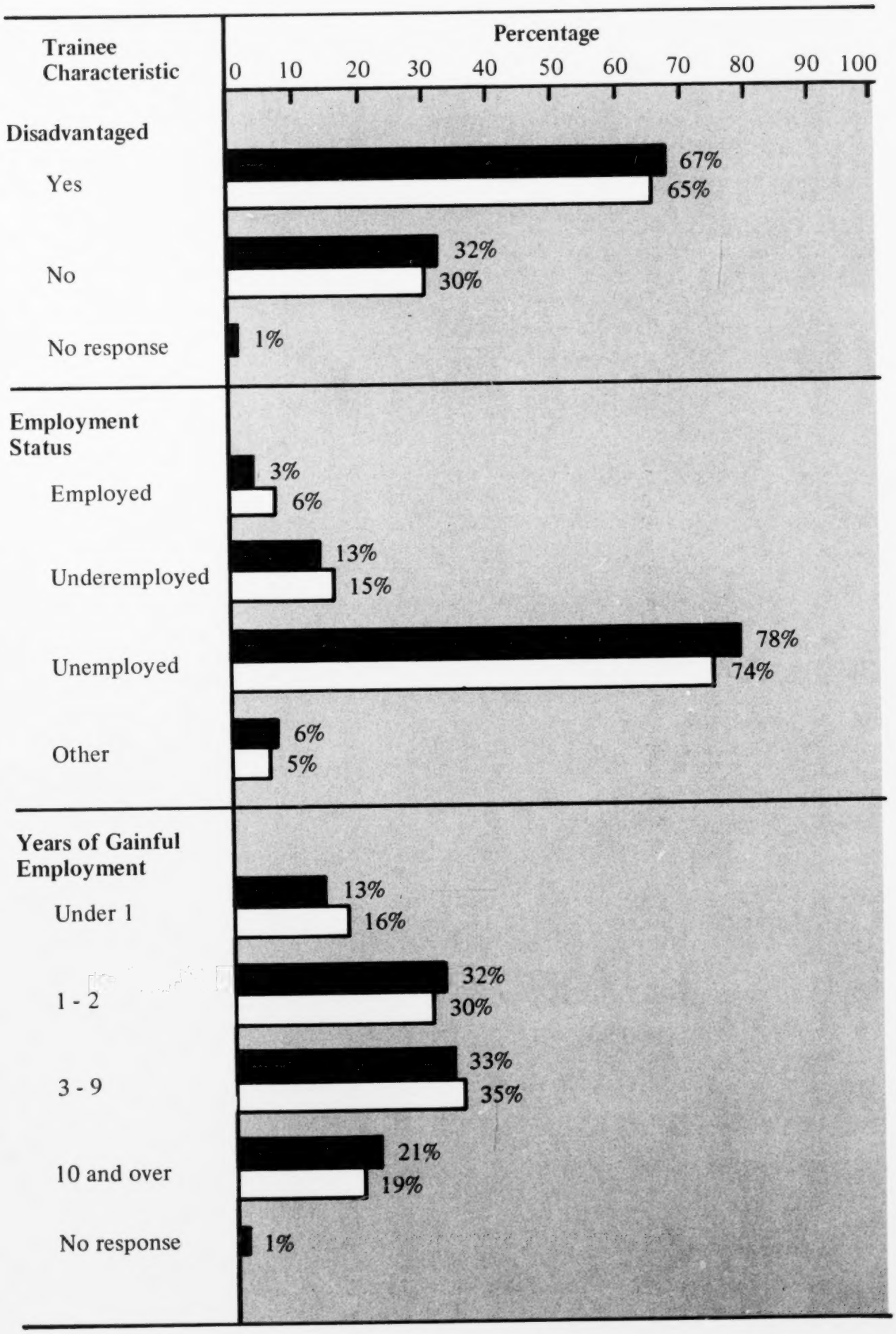
The percentage distribution for the study sample and the national survey are very similar. In describing the MDTA trainee population, the largest percentage are male, forty-four years of age and under, white, head of household, without dependents, about equally divided between those who have attended some high school and those who have graduated, disadvantaged, unemployed upon entering training and have had one or more years work experience.

TRAINEE PROFILE

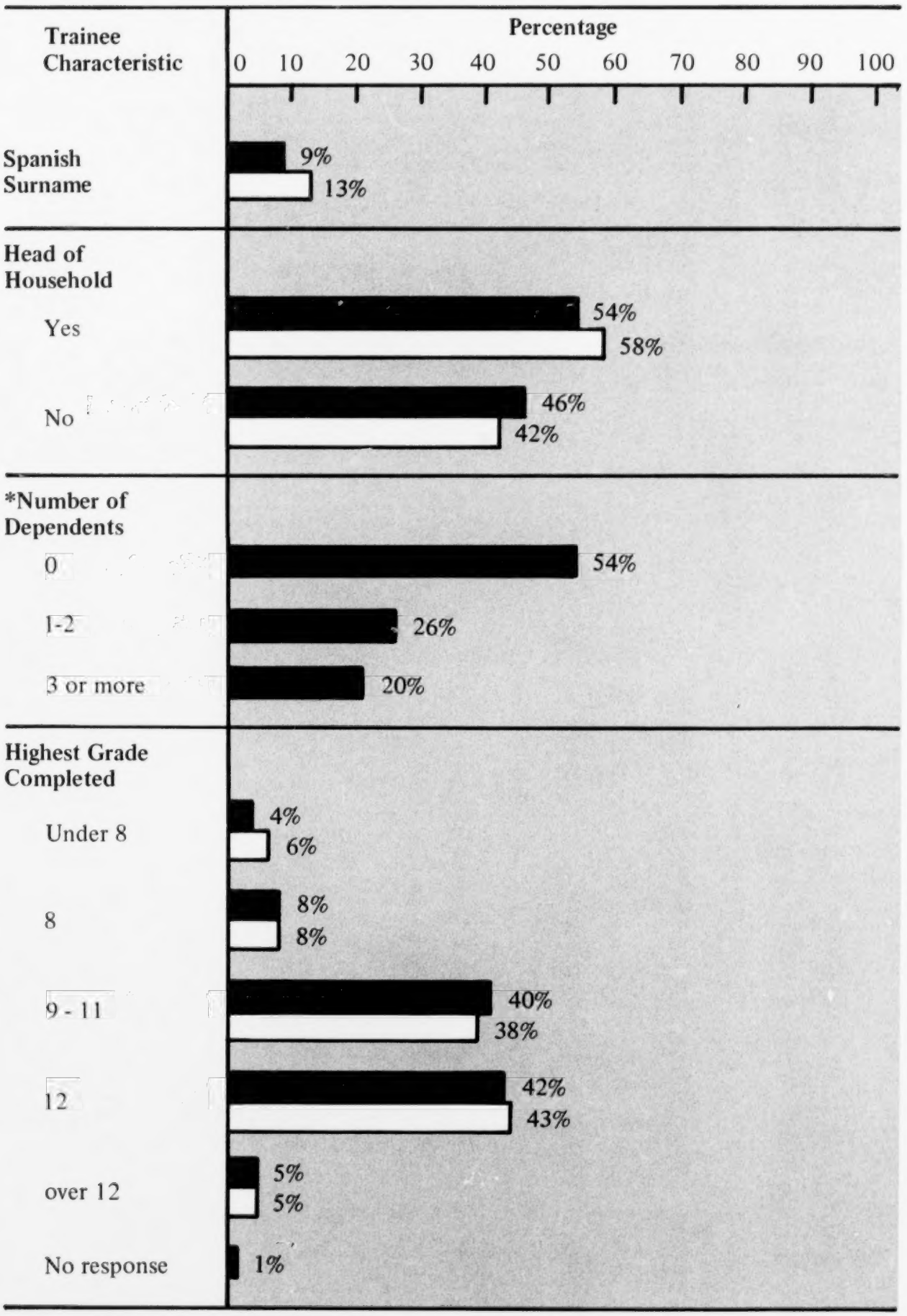
STUDY SAMPLE COMPARED WITH NATIONAL DISTRIBUTION



*A breakdown of trainee characteristics by sex can be found in Figure A, Trainee Profile by Sex, in the appendix.


Trainee Characteristic
Percentage
0 10 20 30 40 50 60 70 80 90 100
Disadvantaged
Yes
67%
65%
No
32%
30%
No response
1%
Employment Status
Employed
3%
6%
Underemployed
13%
15%
Unemployed
78%
74%
Other
6%
5%
Years of Gainful Employment
Under 1
13%
16%
1 - 2
32%
30%
3 - 9
33%
35%
10 and over
21%
19%
No response
1%

x



*National data on number of dependents are not available

APPENDIX C

SPECIFIC PROJECTS EVALUATED IN EACH CITY

SPECIFIC PROJECTS EVALUATED IN EACH CITY

01

Auto Body
Basic education
Drafting (mechanical)
Electronics mechanic
Orientation/pre-vocational
Production machine operator and set-up
Welding Combination

02

Auto mechanic & related education
Basic education
Clerk typist
Cooking
Electronics repair
General clerical & related education
Keypunch
Machine shop & related education
Occupational relations
Office practices
Orientation/pre-vocational
Welding

03

Air conditioning
Auto mechanic
Basic education
Orientation/pre-vocational
Sales and Stock Management & related occupations
Secretary and related occupations
Welding

04

Auto body repair
Auto mechanic
Basic education
Clerk general
Cooking and baking
Nurse aide
Orientation/pre-vocational
Welding

05

Auto cluster
Basic education
Clerical cluster
Licensed practical nurse
Machine tool set-up & operator
Welding (arc)

06

Auto body repair
Auto mechanic
Basic education
Clerical cluster
*Community service occupations
Electronics (TV technical)
Health occupations
Orientation/pre-vocational

07

Auto body repair
Auto mechanic cluster
Basic education
Clerk typist
Dental assistant
Food service cluster (cooking & baking)
Orientation/pre-vocational
Reproduction specialist cluster
Surgical technician
Tabulating & computer programming
Welding cluster

*Community service occupations include teacher aide, employment service outreach aide, job coach, environmental health aide, drug abuse counselor aide, consumer education aide, geriatric aide, administrative aide – city government.

08

Auto body shop
Auto mechanics
Basic education
Building maintenance
Clerk, general office
Drafting and related arts
Orientation/pre-vocational
Welding

09

Basic education
Certified laboratory assistant
Licensed practical nurse
Keypunch
Machinist/Tool & Die Maker
Offset pressman
Orientation/pre-vocational
Typing
Welding (metal working core)

10

Auto mechanic
Basic education
Clerical cluster
Drafting
Fitter, metal trades
Orientation/pre-vocational
TV repair
Welding

11

Auto body repair
Auto mechanic, service station
Basic education
Cashier-checker
Electrical appliance repair
Licensed practical nurse
Orientation/pre-vocational

12

Basic education
Cook
Employment orientation
Machine shop
Welding

13

Auto body repair
Basic education
Clerk general
Keypunch
Loom fixer
Orientation/pre-vocational
Screw machine operator
Turret lathe operator
Welding

14

Auto mechanic
Basic education
Clerical cluster
Radio & TV repair

15

Auto mechanic
Basic education
Business education
Farm and light industrial equipment
Welding (structural)

APPENDIX D

PERCENT COMPLETIONS AND PERCENT EMPLOYED AT TIME OF TERMINATION, BY OCCUPATIONAL AREA, BY CITY

Percent Completions and Percent Employed at Time of Termination, by Occupational Area, by City 1]

Occupational Area By City	% Completions	% Employed at Time of Termination
Automotive		
01	45	30
02	40	40
03	59	59
05	55	20
06	65	45
07	68	46
08	100	75
10	45	20
11	70	40
13	61	44
14	65	20
Total	**61**	**34**
Air Conditioning		
03	80	70
Building Maintenance		
08	100	60
Clerical Occupations		
02	50	28
03	48	52
05	60	20
06	85	55
07	89	44
08	92	8
09	90	37
10	40	30
13	78	14
Total	**66**	**33**

Community Service Occupations		
06	100*	100*
*Trainees in this project were employed at enrollment.		
Drafting		
08	100	67
10	60	25
Electronics Repair		
01	15	25
02	25	30
06	100	93
10	45	10
11	85	85
Total	68	35
Food Service		
02	55	25
04	18	9
07	69	56
Total	54	29
Health Occupations		
04	53	7
06	75	65
09	93	76
11	74	58
Total	81	53
Loom Fixer		
13	91	64
Machine Trades		
01	50	25
02	50	40
05	14	10
09	80	80
12	36	9
13	52	14
Total	46	28

Printing		
07	60	40
09	94	63
Sales and Stock Management		
03	65	65
Tabulating and Computer Programming		
07	70	10
Welding		
01	60	55
02	40	10
03	75	65
05	20	10
07	70	55
08	100	25
09	70	9
10	30	10
11	75	75
12	75	25
13	85	40
Total	**63**	**34**

1]. These data have been derived by submitting 1493 Forms MA-102 for electronic data processing. Because the samples average 20 per City, the data are not statistically significant.

They are presented to indicate the wide variations that exist among cities within the same occupational area.

APPENDIX E

EMPLOYMENT OF MDTA INSTITUTIONAL TRAINEES BY INDUSTRY CLASSIFICATION

EMPLOYMENT OF MDTA INSTITUTIONAL TRAINEES BY INDUSTRY CLASSIFICATION

Industry Classification*	Specific Organization Types Within Each Group
Mining	Copper mining Petroleum producing
Contract Construction**	Local building contracting
Manufacturing	Aircraft Asphalt production Bag producing equipment Bakery products Cast iron products (foundry) Communication equipment (teletype machines) Fabricated metal products Garment production Industrial control equipment Industrial seals (nuclear submarine) Metal working equipment (machine tools) Newspaper Nuclear power plant equipment Printing Recreation vehicles Shipyard (construction and repair) Snow removal equipment Staplers (office) Steel production Textile mill machinery Textile mill products Transportation equipment (diesel locomotives)
Transportation and Public Utilities	City utilities district Commercial and household gas distribution Railroad transportation Taxicab transportation Telephone company

*Listed in the Standard Industrial Classification Manual, Bureau of the Budget.

**No employer in this category was interviewed.

Industry Classification	Specific Organization Types Within Each Group
Wholesale and Retail Trade	Auto parts distributor Beverage bottler and distributor Caterer Dairy products distributor Department store Fabric sales Farm equipment sales Lumber wholesaler New car dealership Radio supply sales Restaurant Service station Shoe sales Supermarket
Finance, Insurance and Real Estate	Bank Life insurance company Medical insurance company
Services	Auto body repair shop Automobile repair, mechanical Building maintenance Data processing service Dental clinic Dentist's office Doctor's office Engineering and architecture Heavy equipment repair Hospital (private) Hotel Housing consultant JOBS consortium University (private)
Government	Administration, city government City department of police City economic opportunity commission County department of environmental health County department of health County department of highways County department of public assistance County recorder

Industry Classification	Specific Organization Types Within Each Group
Government (continued)	Employment Service, local office Hospital (public) National Aeronautics and Space Administration Public school district State department of education State department of highways State division of vocational rehabilitation State university U.S. Bureau of Indian Affairs U.S. Department of the Navy U.S. Veterans Administration hospital Urban renewal department, city government

Source: Information obtained from instructors, Employment Service personnel, and administrators of local training institutions.

APPENDIX F

GUIDELINE CRITERIA - ADEQUACY OF PHYSICAL FACILITIES

PHYSICAL FACILITIES

Physical facilities affect the quality of instruction to a very great extent. Lack of space in which to move and operate equipment, dim lighting, underheating or overheating a room, high degree of noise, out-of-date and poorly maintained equipment, and insufficient equipment are factors that tend to interfere with good instruction. It is desirable, therefore, that these items should be observed and noted for the purpose of arriving at a determination of the impact of the instruction on the trainees, particularly with reference to the quality of training.

SPACE

Crowded conditions in either the basic education as occupational training locations tend to reduce teaching effectiveness and constitute a safety hazard. Space is inadequate when pieces of equipment are so closely placed together that movement of trainees within the room is impeded and interferes with the operation of the equipment. Similarly, basic education and orientation project rooms should be termed inadequate when furniture such as desks and tablet-arm chairs take up so much space that movement is very difficult and there is no space provided between trainees.

A situation in which the working and other space is such that trainees can operate equipment or move about without being interferred with by the proximity of others may be identified as adequate.

LIGHT

Adequate lighting is usually determined by checking with a light meter. Lacking this instrument such an evaluation would have to be determined by the observer using his own judgment and guided by the following explanations.

Lighting may be termed inadequate when it is dim, relatively few fixtures are in the room, much of the space is in shadow, and the equipment which is used has no special illuminating device attached to it.

With adequate lighting the illumination is distributed evenly throughout the room, there is no glare at any point, each piece of equipment has its own light attachment if necessary, and the wattage is high enough to make possible visual usage without straining the eyes.

HEAT AND VENTILATION

Either too cold or too hot a temperature in the learning facility may retard learning. Authorities do not completely agree on the optimum temperature which is most conducive to learning in a shop or laboratory or basic education classroom. Some place this at 68 degree measured 36 inches above the floor. It seems reasonable to assume that a temperature of 80 degree in a learning situation in any one of the three areas mentioned previously would be considered to be inadequate. A temperature varying between 68 and 72 should be categorized as adequate.

Ventilation engineers would make an evaluation by measuring the volume of change of air per minute. Evaluation by a lay person can be made only by sight (existence of fumes or smoke not removed by a change of air) or smell. If the air has a "stuffy" smell or an unpleasant odor it could be safely assumed the ventilating system is inadequate. If these conditions are not present the system may be classified as adequate.

POWER

Power is an important factor in many occupational skills training programs. The quality of the instruction may be adversely affected if the power supply breaks down frequently and causes the equipment to be idle.

In occupational skills training areas where heavy machinery is operated there must exist a very high power potential. It might be reasonably assumed that in such an area if all pieces of equipment were operating at the required speeds at the time of the observation, the power may be classified as adequate.

Perhaps the most knowledgeable answer to such a question could be gotten from the instructor. If he is competent in his occupation, he should be able to make a very accurate judgment about the power needs. He should be questioned about this matter and should be asked to make an explanation if his reponse appears to be negative.

SOUND

Whether or not a shop or classroom has good or poor acoustics can be determined by the degree of difficulty or ease with which the instructor and the trainees can make themselves heard under normal circumstances. When no difficulty is encountered by the members of the group in hearing each other it may be assumed that the acoustics

and the sound conditions are adequate. However, it must be remembered that there may be situations in which normal operations create a great deal of noise. It would be unfair, in these cases, to classify the learning area in the inadequate category. What should be judged then is the instructor's initiative and ingenuity in removing the learner to a quiet place where each can hear the other with ease.

EQUIPMENT

There is no gainsaying the point that the relevance and quality of training for employability are affected by the age, condition, and quantity of equipment which is available. It is possible to provide relatively high quality of instruction with equipment which is somewhat out-of-date if the learners have the opportunity to advance to a higher level where the equipment becomes increasingly modern. This kind of opportunity is rarely available in MDTA institutional training projects where the possibility of fairly immediate job placement is so important to the trainees. Therefore, the equipment which is quite up-to-date must be judged to be adequate. The instructor and members of the Occupational Advisory Committee should be the best judges in this case.

Course objectives in MDTA institutional programs may be different from each other. A course which aims to prepare the trainees to become employable in entry level jobs is certainly different from that which is designed to provide upgrading training. The variety and kinds of equipment required to provide each trainee to become acquainted with and competent in operating these pieces of equipment may be relatively small when the trainees are being prepared to take and hold the simple jobs. The number and complexity needed to provide adequate training will increase with each level for which people may be trained. Adequacy in this factor will depend, then, upon the level of job which the course has been established to achieve. The important factor is that the trainee must be given the opportunity to become acquainted with and to learn to operate the different kinds of equipment which he will face when he becomes employed.

Quantity of equipment must be available to assure that each trainee in an MDTA institutional course is given the sufficiency of training which will help to make him employable. In occupational skills training it is important that each trainee must be given the drill and the speed training which will make him capable of handling the equipment within reasonable reach of the standards of the occupation. If this condition does not prevail in the project which is under observation, it must be judged to be inadequate.

APPENDIX G

HOUSTON SKILL CENTER TRAINING EVALUATION UNIT

MATERIAL IN THIS APPENDIX
WAS PROVIDED BY
THE HOUSTON SKILLS CENTER.

HOUSTON SKILL CENTER RATIONALE FOR TRAINING EVALUATOR SLOTS

In deference to the tremendous investment of time, money and human effort involved in M.D.T.A. training on the part of taxpayers, employers, educators and trainees themselves, it is mandatory that administrators of these programs make the training as thorough, specific and pertinent to employability as possible. The trainees must be given the very best opportunity that can be afforded by educational programs of this type.

It is well recognized that within the narrow confines of a classroom situation, the true goal of vocational training – the training of prospective employees capable of actual productivity on-the-job – can be lost in a deluge of theory and obsolete methodology. **It has been determined that to evade the pitfall of dissemination of unapplicable instruction, an ongoing evaluation of the quantity, quality and relevancy of the training given must be carried on.**

In the ever-changing world of business and trades, new methods, equipment and working procedures are being constantly introduced. To cope with this problem of adaptability, vocational training must rely on members of the business and industrial community for assistance in developing more practical and effective coverage of vocational training needs.

The results of training can be measured quantitatively by means of controlled placement and specialized follow-up of these placements.

The program, as it is now conceived, will be implemented along the following lines:

When an instructor determines that a trainee is ready for employment, the Training Evaluator (TE) will be notified. The trainee will be interviewed and rated by: the instructor, the TEC counselor and the Training Evaluator assigned to them. Any problem that prohibits the trainee from accepting suitable employment will be solved if possible through cooperation with other agencies (Day Care, Vocation Rehabilitation, Welfare, etc.), or through involvement outside these agencies such as: Transportation problems, lack of a birth certificate, acquisition of health certificates, social security cards, driver's license, etc. The Training Evaluator then attempts to place the trainee selectively on a job where the trainee appears to have the greatest opportunity for success considering ability, ambition, personality and motivation. On a prearranged schedule agreeable to the employers, the Training Evaluator will call back to ascertain whether, in the employer's opinion, the training received by the Trainee, as evidenced by his ability to perform and adapt to the job, has been: (1) More than

sufficient to meet their requirements for entry-level employment. (2) Adequate for only the very lowest level entry-level job. (3) Too broad in its scope with not enough specific information of detail. (4) Too narrow in its scope so that the Trainee feels inadequate to diversity, etc.

It is possible that the opinions of the employers will deal primarily with the personality of the individual rather than with his ability to perform on the job. In these cases, due note will be taken, but separate and apart from the purpose of evaluating the curriculum of the training offered. The idea being, to not delve into personality and to keep the evaluation strictly in follow-up sessions with employers, the curriculum of the programs could be altered to put greater stress on personal and interpersonal relations. More time can be devoted to discussing the necessity of punctuality, dependability, willingness to accept suggestions and criticism and handling unpleasant situations.

The results of these interviews will be gathered from all the TE members and summarized. Certain specific changes may be recommended to the Coordinator of the Program. Upon his recommendation, the data will be given to a committee for curriculum changes into ongoing classes. Each vocational area will be handled as a separate entity and specific recommendations will pertain only to that particular field.

Additionally, OJT slots may be developed for the purpose of training evaluation. Similar methods will be used to elicit information, criticism, and/or recommendations from the employers that will allow M.D.T.A. training to be ever-growing, dynamic and changing with modern technology and methodology of the business and industries of the community.

The TE will work directly under the Program Coordinator and be responsible to him. They will be expected to work closely with the Texas Employment Commission which has heartily approved the idea and pledged its cooperation and support. Each trainee placed on a job will be followed for one year from the date of placement.

It is expected that checks will be made on a schedule similar to the following: First visit – three weeks from the date of placement, four-week intervals thereafter.

The reporting procedure will be as follows:

1. All placement will be reported to the Coordinator and Counselors weekly.

2. Personal follow-up contacts will be made with the trainee and employer on a scheduled basis.

3. Information obtained from On-the-Job visitation will be submitted in report

form to the Coordinator each month.

4. Summarization of all evaluation activities will be submitted semi-annually to the Assistant Superintendent in charge of Vocational Education and to the State Director from M.D.T.A.

5. Curriculum revision will be made only after recommendations have been submitted to and approved by the Curriculum Committee, the Assistant Superintendent and the State M.D.T.A. office.

In the final analysis, the object of this phase of the program is to try to ascertain whether or not the trainees who leave the school succeed or fail on the merits of the training they have received and if so, can that training be changed so that a larger percentage of graduates will be able to cope with the work that they must do in the world.

TRAINING EVALUATION

Historically, the success or lack of success by MDTA graduates on the job has been overlooked. Now, the time has come that we can no longer ignore this most vital of all information necessary in order to justify our further existence.

Many theories can be supposed for the lack of success by our graduates. Let us look at some of the reasons that might be causes for failure.

1. Lack of proper training by this agency because of outdated and non-relevant curriculum guides, outmoded equipment, lack of enthusiasm by the instructors, or insufficient time for thorough training.

2. Failure to impress trainees with the absolute necessity of being dependable, to instill a good attitude toward work in general, or failure to inform trainees of the realities of the world of work.

3. Misplacement of trainees on jobs that are either beyond their capability or below their ability with no chance for upward mobility within a particular company.

4. Lack of proper pretesting and evaluation to eliminate trainees with insufficient aptitude being placed in classes.

5. Training may be given in areas with insufficient demand and/or insufficient wages.

6. Failure to assist trainees in solving all personal problems that can interfere with their jobs such as child care, transportation, etc. prior to employment.

Other ideas and theories could be enumerated; however, it is the job of the Training Evaluators to determine the facts. This will be done by employment of the following plan:

1. Extensive knowledge of the individual trainees as reflected by instructor's recommendations, counselor evaluation, and personal interviews by the Training Evaluators.

2. Careful selective placement of these trainees in light of their abilities and ambitions.

3. In-depth analysis of the employer's exact needs for specific jobs.

4. Scheduled check-ups with both the employer and the trainee.

Forms and procedures are being created so that a standardization can be obtained from which definitive conclusions can be drawn with a great deal of authority. The procedure outlined at this time (subject to alteration and modification as the program develops) is as follows:

1. Obtain a course outline from each individual class or category within the Cluster.

2. Summarize what a trainee should be able to do after having completed the training as outlined.

3. Correlate our curriculum with specific needs as outlined by the prospective employers.

4. Contact employers and determine qualifications according to:
   (a) Knowledge absolutely prerequisites for entry-level employment.
   (b) Knowledge absolutely prerequisites for higher classifications or promotability.
   (c) Knowledge highly desirable, though not absolutely necessary, which would be advantageous to both employer and to the trainee.

5. Request referrals by instructors of Job-Readiness Class

6. Get evaluation of trainee by the Counselor

7. Have personal interview with the trainee making specific notes on:
   (a) Attitude
   (b) General appearance
   (c) Confidence
   (d) Ability to handle personal problems
   (e) Job preference
   (f) Salary requirements

8. Compare and summarize all information on the trainee. If there are wide discrepancies in opinions, the entire process would be redone.

9. Selective placement of the trainee on a job that matches as closely as possible the employers' needs and the trainees' abilities and desires.

10. Follow-up on a regular predetermined arrangement with both the employer and the trainee.

HOUSTON SKILL CENTER

JOB-READINESS

COURSE OUTLINE

The Job-Readiness class will be conducted for forty hours during the last week of the training cycle for all MDTA trainees.

Objectives:

1. To provide a central location for the recording of placement and interview information.

2. To provide a central location where all MDTA trainees in the last week of their training can be readily accessible to TEC counselors and the Job Bank to facilitate placement.

3. To provide a location where businessmen can have an opportunity to interview trainees available for employment and to assess MDTA facilities.

4. To provide a location where people from industry can present their personnel policies in symposium to the trainees.

5. To provide instruction in the preparation of job campaigns, resumes and application blanks.

6. To provide instruction on interviewing techniques.

7. To provide instruction in the area of personnel testing.

8. To provide a forum for discussion of trainees' problems common to all such as: Transportation; child-care facilities; upgrading, night-school programs; local industries utilizing their particular skills.

9. To provide a time and an instructor for individual counseling of personal problems that might joepardize the trainee's employability if not solved prior to

leaving the Skill Center.

10. To provide time for the trainees to follow-up Job Bank referrals and to seek employment on their own initiative.

OUTLINE

I. Introduction to the function of the Job Bank
   A. Introduce trainee to the personnel at the Job Bank
   B. Inform Trainee TEC E15 form must be made current
   C. Explanation of the operation of the Job Bank
   D. Daily scheduling into the Job Bank

II. Discussion of personal attributes required of good employees.
   A. Absenteeism and tardiness
   B. Initiative and ambition
   C. Loyalty and courtesy
   D. Proper grooming for specific jobs
   E. Responsibility and adaptability
   F. Troublemaking

III. Development of a resume
   A. Accumulation of the necessary information
   B. Preparation

IV. Instruction in the preparation of application blanks
   A. Prepare application blank from resume
   B. Follow instructions and be consistent
   C. No blank spaces
   D. Selection of references
   E. Spelling, neatness, legibility
   F. Salary question
   G. Prepare sample application blanks
   H. Honesty

V. Introduction to personnel testing

A. How to take the test to accumulate the most points whether skill or aptitude tests

B. Exercises in testing problems

1. Number relations and comparisons
2. Similarities and analogies
3. Special relations
4. Vocabulary and spelling
5. Arithmetical computation
6. Name or number checking
7. Numerical/Chronological checking
8. Classification test

C. Sample questions from Wunderlich and Civil Service Tests

VI. Interview Techniques

A. What employers look for

1. Self expression and presence
2. Manners, personality and character traits
3. Personal appearance
4. Past work experience
5. Interest in opportunity and the responsibility and willingness to accept beginning job requirements

B. Do's and Dont's for a job interview

C. Types of questions asked and their objective

1. Tell me about yourself
2. Do you prefer to work with others or alone?
3. What do you hope to do ten years from now?
4. How do you spend your spare time?
5. What have you learned from past jobs?
6. What is your major weakness?
7. In what type of work are you most interested?
8. Why are you interested in this type job?
9. Why do you want to work for this company?
10. What are your ideas about salary?

D. Practice role-playing interviews

E. Symposiums of personnel men discussing interviewing techniques

xxx

VII. General Information Forum

A. G. E. D. information

B. Bus routes and charges

C. Local child-care facilities

D. Houston Skill Center upgrading courses

E. Resource manuals for possible employment, i.e., yellow pages, newspaper, Manufacturer's Guide

F. Private employment agencies

VIII. Personal Counseling

IX. Record keeping

A. Job Bank referrals

B. Scheduling interviews

C. Individual trainee interview records

D. Employment during Job-Readiness period

E. Contact between TEC Work Training Specialist and Trainee

F. Processing 952 forms

HOUSTON SKILL CENTER
TRAINING EVALUATIONS

The Training Evaluators will conduct a follow-up and research study beginning four weeks prior to the trainees' leaving the MDTA program through their first six months on the job in order to evaluate the efficiency of the program and to provide objective data for curricular revision.

Objectives:

1. To become familiar with the vocational objectives of the present curriculum

2. To interview each trainee as he/she becomes job ready prior to job placement

3. To provide a central location for the accumulation of achievement and personnel records of each trainee during his/her tenure in the MDTA program

4. To organize a follow-up system of trainees placed on jobs

5. To investigate the employment needs of the industrial and business community by evaluating the performance of graduates currently employed

6. To collect and organize the data so that it can be used in curriculum development

APPENDIX H

PROJECTS DISCONTINUED BY CITY

PROJECTS DISCONTINUED BY CITY

Project	Reason Continued
06	
Drafting	Lack of labor market demand
07	
Registered nurse-upgrade	Lack of support from professional organization
Automatic transmission	Lack of funds
E and D multi-occupation	Lack of funds
Electronics	Lack of funds
Building maintenance	Lack of funds
Drafting	Lack of trainee interest
08	
Auto body repair	Lack of funds
Food service	Lack of funds
Appliance repair	Lack of funds
Photo retouch	Lack of labor market demand
Drafting	Lack of funds
General clerical	Lack of funds
Small engine repair	Lack of labor market demand
Route sales	Lack of trainee interest
09	
Ward clerk	Lack of funds
Nurse aide	Lack of trainee interest (low salary)
Operating room technician	Lack of labor market demand
Drapery operator	Lack of labor market demand
Comptometer	Lack of labor market demand
Currency exchange	Lack of labor market demand
Landscaping	Lack of labor market demand
10	
Inhalation therapist	Lack of sufficient training time
Medical laboratory assistant	Lack of funds
Refrigeration and air conditioning repair	Lack of labor market demand
Sales – auto parts	Lack of labor market demand
Masseur	Lack of labor market demand
Obstetrical technicial	Lack of labor market demand
Residential carpentry	Lack of labor market demand
Meat cutter	Lack of labor market demand
Baker	Lack of labor market demand
Electronics technician	Lack of labor market demand
Transmission mechanic	Lack of labor market demand

continued

Project	Reason Discontinued
11	
Dry cleaning assistant	Lack of trainee interest (low wages)
Alteration tailor	Lack of trainee interest (low wages)
Furniture upholstery	Lack of trainee interest (low wages)
Dietician assistant	Lack of trainee interest (low wages)
Cafe waitress	Lack of trainee interest
TV repair	Lack of sufficient time for training
12	
Home health aide	Lack of labor market demand
Child day care aide	Lack of labor market demand
13	
Small gas engines	Lack of labor market demand
Drafting	Lack of labor market demand
Automatic transmission repair	
Cook	Don't know
14	
Building maintenance	Lack of trainee interest
Shoe repair	Lack of trainee interest (low wages)
15	
None	

PERCENTAGE DISTRIBUTION
REASONS FOR DISCONTINUING PROJECTS (N = 47)

Reason	*Percent
Lack of labor market demand	45%
Lack of trainee interest	21
Lack of Funds	23
Lack of support from apprentice or or professional organization	2
Lack of sufficient training time	4
Don't know	4

*Percent does not add to one hundred due to rounding